IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

JOSEPH GIAMANCO, individually and on behalf of all others similarly situated, Plaintiff, v. APPLE INC., Defendant.	CASE NO. **CLASS ACTION COMPLAINT** **JURY TRIAL DEMANDED**

Plaintiff Joseph Giamanco, on behalf of himself and those similarly situated, states as follows:

NATURE OF ACTION

1. Apple is the most profitable consumer electronics company in the world. It initially reached this rarefied position by developing popular consumer products upon which millions of Americans have come to rely. But for the last decade or more, Apple has exploited its accumulated power to gain control of additional markets. This case is about Apple's use of anticompetitive agreements and tactics to limit competition with its smartwatch, the Apple Watch, and acquire and maintain a smartwatch monopoly.

2. Apple takes a belt-and-suspenders approach to restricting competition. First, it forces competing smartwatch manufacturers to enter into contracts in which they agree not to compete with Apple in critical respects. These contracts protect Apple's smartwatch monopoly by preventing smartwatch competitors from ever offering the full range of features the Apple Watch provides and challenging the Apple Watch's dominant market position.

3. Then, to ensure its competitors cannot erode the Apple Watch's market share, Apple employs an assortment of anticompetitive strategies to restrict smartwatch competition. Among other conduct, Apple has: introduced automatic software updates that disrupt competing smartwatches' functionality, and even render them non-functional for extended periods of time; blocked and degraded competitors' access to key iOS functionalities, rendering competing smartwatches unable to, for instance, reply to text messages; imposed restrictions in the name of "privacy" that force users of competing smartwatches to publicly expose notifications and messages on their smartphones in order to receive them on their smartwatches; restricted smartwatch competitors' ability to offer mobile wallets comparable to the mobile wallet available on the Apple Watch; ensured that the performance of competing smartwatches is degraded whenever users' smartphones enter Low Power Mode; and designed its systems in a manner that causes competing smartwatches, but not the Apple Watch, to repeatedly lose connection.

4. All of this is according to plan. In October 2010, Steve Jobs laid out his "2011 strategy" for Apple in an internal email. The last bullet point reads: "tie all of our products together, so we further lock customers into our ecosystem."[1] Apple executed this plan with the Apple Watch; unfortunately, the plan has been an enormous success. Today, at least 78% of iPhone owners who own a smartwatch have an Apple Watch—and that percentage is rising. The Apple Watch also accounts for an approximately 60% (and growing) share of the overall U.S. smartwatch market. Meanwhile, competitors to the Apple Watch are falling away. In 2022 alone, Meta abandoned plans to launch a smartwatch that would compete with the Apple Watch, and Google announced that it would not release its Google Pixel Watch for iOS, citing Apple's anticompetitive API restrictions. Apple reaps the rewards of this limited competition. In 2023, the company reportedly

[1] Email from Steve Jobs (Oct. 24, 2010).

earned $23.8 billion in revenue from Apple Watch sales, approximately the same annual revenue as McDonald's or Southwest Airlines.

5. Apple's years-long campaign to degrade the performance of competing smartwatches has harmed its own customers. The company has made it needlessly difficult for its customers to use competing smartwatches and, by foreclosing competition, has been able to charge supracompetitive prices for the Apple Watch for many years. Plaintiff seeks to put an end to Apple's anticompetitive practices and hold Apple responsible for its monopolistic abuses.

PLAINTIFF

6. Plaintiff Joseph Giamanco is a natural person who resides in Bolingbrook, Illinois. Mr. Giamanco purchased an Apple Watch Series 7 on December 2, 2021, from Apple.com for pick up at the Apple Store in Oakbrook, Illinois.

7. Mr. Giamanco is a cyclist and amateur triathlete. During a 70.3 mile race in Wisconsin in 2022, his Apple Watch battery ran out shortly before the finish line. Earlier this year, he considered replacing his Apple Watch with a Garmin smartwatch to take advantage of the Garmin's superior battery life and other advanced features. Mr. Giamanco decided to retain his Apple Watch, however, due to restrictions on the Garmin smartwatch's functionality when connected to his iPhone. Mr. Giamanco would prefer to own a Garmin smartwatch and would purchase one in the absence of Apple's restrictions on the Garmin smartwatch's capabilities.

DEFENDANT

8. Defendant Apple Inc. ("Apple") is a California corporation with its principal place of business at 1 Apple Park Way, Cupertino, CA 65014.

RELEVANT NON-PARTIES

9. Motorola Mobility LLC ("Motorola") is a Delaware corporation with its principal place of business at 222 West Merchandise Mart Plaza, Chicago, IL 60654.

10. Garmin International, Inc. ("Garmin") is a Kansas corporation with its principal place of business at 1200 East 151st Street, Olathe, KS 66062.

11. Google LLC ("Google") is a Delaware corporation with its principal place of business at 1600 Amphitheatre Parkway, Mountain View, CA 94043. Employees working on Google's Pixel Watch and Wear OS also work out of Google's office at 320 N Morgan Street, Suite 600, Chicago, IL 60607.

12. Samsung Electronics America, Inc. ("Samsung") is a New York corporation with its principal place of business at 85 Challenger Road, Ridgefield Park, NJ 07660.

JURISDICTION

13. This is a civil action seeking damages and injunctive relief under federal antitrust law. The Court has subject matter jurisdiction over the causes of action under 15 U.S.C. § 26 and 28 U.S.C. §§ 1331, 1337.

14. This Court also has subject matter jurisdiction under 28 U.S.C. § 1332(d) because the proposed Class contains more than 100 persons, the aggregate amount in controversy exceeds $5,000,000, and at least one proposed Class Member is a citizen or subject of a foreign state and Defendant is a citizen of the State of California.

15. This Court has personal jurisdiction over Defendant, and venue is proper in this district, under Section 12 of the Clayton Antitrust Act, 15 U.S.C. § 22. Defendant may be found in and transacts business in this district. Defendant employs hundreds of people and operates numerous retail stores in this district, including the Oakbrook, Illinois, store where Mr. Giamanco

picked up his Apple Watch, as well as a flagship store on Michigan Avenue in Chicago, a few blocks from where Apple launched its first flagship retail store in 2003.

16. This Court also has personal jurisdiction over Defendant because Apple has sufficient contacts with the State of Illinois, including in this district, and has purposefully availed itself of the privilege of conducting business in Illinois and in this district. Venue is thus proper in this district under 28 U.S.C. § 1391.

FACTUAL ALLEGATIONS

I. Apple's Control Over iOS APIs

17. Smartwatches are wrist-worn devices that extend and improve the capabilities of smartphones. Among other functions, they may allow users to view and act on messages and notifications received by the smartphone, provide easy access to the smartphone's mobile wallet, and collect health and fitness data that is synced to smartphone apps.

18. All of these smartwatch functionalities are enabled via smartphone Application Programming Interfaces (APIs). An API is a set of rules that allows one piece of software to integrate or exchange data with another piece of software. Smartwatches, including the Apple Watch and its competitors, rely on APIs to perform core smartwatch functions.

19. This reliance on APIs mirrors the rising centrality of smartphone APIs—and iOS APIs in particular—in the overall economy. As smartphones have become more embedded in Americans' day-to-day lives, smartphone APIs have become critical for a wide variety of tasks. On a given day, a typical smartphone user might check local bus times on Google Maps, swipe her transit card with Apple Wallet, listen to a podcast on Spotify, dial into a Zoom call from her smartphone, log in to Microsoft Outlook by responding to a two-factor authentication notification, order lunch from Uber Eats, post a photo of that lunch on Instagram, and unlock her apartment

door at the end of the day with a mobile Bluetooth key. All of these functions are routed through APIs: It is those APIs that give Google Maps access to the user's location, the transit service access to mobile ticketing, the music service access to the speakers, the videoconference app access to the camera and microphone, the two-factor authentication app access to actionable notifications, Instagram access to photos, and the mobile key app access to Bluetooth.

20. Apple permits third-party app developers to use certain APIs because it benefits greatly from the work of those developers. Without access to APIs, developers could not build apps upon which smartphone owners come to rely (and Apple often does not produce itself). Apple similarly benefits from Apple Watch competitors accessing certain iOS APIs. Yet, as detailed in the sections that follow, Apple discriminates against third-party smartwatch makers, selectively limiting access to APIs in response to competition to ensure that the vast majority of iPhone owners, and smartphone owners overall, purchase an Apple Watch as opposed to competing devices.

A. Apple's Anticompetitive Agreements with Competitors to Restrict API Use

21. Apple picks and chooses the capabilities of third-party apps, and third-party iOS-connected devices, by designating certain APIs "private" and restricting access to other nominally "public" APIs.

22. As a technological matter, there is little difference between a public API and a private API. Therefore, to ensure that developers do not take advantage of certain iOS functionalities, Apple requires companies that distribute apps for iOS to sign a non-negotiable Developer Program License Agreement (DPLA), which dictates that developers use public APIs "in the manner prescribed by Apple," and prohibits them from using "private" APIs altogether. Apple also ensures that APIs remain private by not publicly disclosing them. But even if a

developer learns how to access a certain private API, as often happens, its DPLA with Apple prohibits the developer from using it.

23. Every maker of iOS-connected smartwatches must sign a DPLA because Apple requires these companies to distribute an app to iPhone users before an iPhone can connect to the smartwatch. By entering into this agreement, competing smartwatch makers agree to limit the functionality of their smartwatches at Apple's discretion, depriving iPhone owners with competing smartwatches of key features that not only are available on the Apple Watch, but are also available on the very same competing smartwatches when used by owners of Android smartphones.

B. Apple's Use of API Restrictions to Harm Competition in Various Markets

24. The use of API restrictions to harm competition in related markets is a longstanding Apple strategy. The UK's Competition & Markets Authority has recognized that Apple "can determine the functionality available to apps through control of access to APIs," and that Apple has "reserved access to certain hardware functionality," thereby "protecting its own services from competition and potentially restricting innovation."[2] More recently, the Department of Justice and 16 Attorneys General accused Apple of monopolizing the smartphone market, and highlighted the fact that "Apple selectively designates APIs as public or private to benefit Apple, limiting the functionality developers can offer to iPhone users even when the same functionality is available in Apple's own apps."[3]

25. One well-known example of Apple using API restrictions to its advantage relates to internet browser competition on the iPhone. To give its own Safari internet browser an advantage, Apple for many years reserved a superior private API for itself and relegated Google's

[2] Competition & Markets Authority, *Mobile ecosystems: Market study final report* at 6.261 (June 10, 2022).

[3] Complaint at 22, *U.S. v. Apple, Inc.*, No 24-cv-04055 (D.N.J. Mar. 21, 2024), ECF No. 1.

Chrome browser to an inferior API. This ensured that Google's Chrome browser for the iPhone loaded pages more slowly than Apple's Safari browser—needlessly harming iPhone users' experience, but generating additional profits for Apple.[4]

26. In the same way Apple degraded the performance of Google Chrome, Apple has a long history of using its power over iOS APIs to disadvantage third-party device makers that compete with Apple's own iOS-connected devices. Consider Tile, a company that pioneered small tags that could be affixed to items such as wallets and keys so they could be easily located with a smartphone app. Tile relied on iOS devices' Bluetooth technology to function, and accessed that technology via API. For many years, Apple touted Tile as an exemplary use of iOS capabilities, even featuring the app on stage at its 2018 Worldwide Developer's Conference. In 2019, however, Apple released its competing AirTag device, a tracking device that could be affixed to items and allow users to find them in Apple's FindMy app. In advance of releasing AirTags, Apple updated iPhones to have superior ultra wideband (UWB) Bluetooth capabilities, which allowed for far more precise object tracking. Apple initially refused to provide Tile access to UWB Bluetooth, giving AirTags a distinct advantage. Later, Apple sent Tile users notifications that encouraged them to turn off the Tile app's tracking capabilities for privacy reasons, while sending no similar notifications with respect to the FindMy app. Apple only stopped some of this behavior after Tile's General Counsel and Chief Privacy Officer testified before the House Antitrust Subcommittee in January 2020. Apple later developed an "accessory program" that would give Tile access to some of the capabilities of its FindMy platform, such as encrypted location data from Apple's installed base of iOS devices, but only on the condition that Tile shut down its competing network.[5]

[4] Thomas Claburn, *Apple frees a few private APIs, makes them public*, The Register (June 13, 2017), https://www.theregister.com/2017/06/13/apple_inches_toward_openness/.

[5] Testimony of Kirsten Daru, Chief Privacy Officer and General Counsel for Tile, Inc., *Antitrust*

27. Tile's experience is one of many stories where Apple has used its power over iOS to hamstring competitors. In 2020, the Chief Legal Officer of Sonos—a competitor to Apple's HomePod speakers—testified to Congress, accusing Apple of exploiting its existing market power to gain an unfair advantage in competition with third-party iOS-connected devices. Then, just last year, Apple removed the ability to control the volume on Sonos speakers by pressing the iPhone's physical volume buttons. HomePod speakers, meanwhile, can still be controlled with the iPhone's volume buttons.

28. Apple's conduct follows a familiar pattern. Apple opens iOS to third-party connected devices so that its customers can gain the benefit of those devices. In turn, Apple benefits: Those devices improve its users' experience at little to no cost to Apple, increasing the demand for iOS devices. But when Apple decides to enter the iOS-adjacent market and compete with those connected devices, its incentives change. The third-party connected devices are no longer boons to Apple, but threats to its business in the adjacent market. So Apple uses anticompetitive conduct and agreements to drive out competitors—at the expense of those users whose third-party devices are degraded, and at the expense of competition in the market overall. Apple's conduct with respect to the Apple Watch has followed precisely this pattern.

II. The Development of the Smartwatch: The Rise and Fall of Pebble

29. The first mass-market smartwatch may have been Sony's LiveView Watch, released in September 2010. The watch paired to Android smartphones and primarily delivered smartphone notifications to the wearer's wrist. The absence of a true touch screen and poor Bluetooth connectivity limited the device's appeal. Sony later added a touchscreen and improved

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Applied: Examining Competition in App Stores, Before the Senate Committee on the Judiciary, Subcommittee on Competition Policy, Antitrust, and Consumer Rights (Apr. 21, 2021).

the Bluetooth connection to what it called the Sony "SmartWatch," but the SmartWatch was soon overshadowed by an upstart competitor.

30. In 2012, a startup called Pebble launched a Kickstarter campaign to develop a smartwatch. At the time, Pebble was the most successful Kickstarter campaign ever, raising over $10 million from over 68,000 individual funders. Released in January 2013, the Pebble smartwatch has been called the first modern smartwatch. It was compatible with both iOS and Android smartphones, featured a host of advanced features, and gained a wide following. Pebble went on to sell millions of smartwatches before going out of business just three years later. The story of Pebble provides a window into early smartwatch development—and into some of Apple's earliest anticompetitive efforts to limit smartwatch competition.

31. The earliest Pebble smartwatch connected with iOS and Android devices alike and provided easy access to smartphone functionalities. Yet Pebble users with iOS devices lacked access to key features. Most notably, iPhone users could not receive text messages on their Pebble smartwatches, while Android users could. Pebble acknowledged this limitation on the original Kickstarter page, attributing it to restrictions Apple placed on iOS integration. A Time Magazine article in 2012 observed that "Pebble's promise to sync with iPhones is a huge competitive advantage, even though [its] capability is slightly crippled: Android users will be able to read text messages on their Pebble watches, but Apple doesn't allow that information to be exposed."[6]

32. Pebble spent the next three years working to develop a solution to Apple's unnecessary messaging restrictions. By May 2015, its newly developed Pebble Time smartwatch

[6] Jared Newman, *How Pebble Became a Smartwatch Phenomenon Overnight*, Time (Apr. 18, 2012), https://techland.time.com/2012/04/18/how-pebble-became-a-smartwatch-phenomenon-overnight/.

was able to display text messages when an iPhone user received them. Yet due to Apple's restrictions, the Pebble Time was still unable to provide users a way to *reply* to text messages.

33. Apple released the first Apple Watch in April 2015, one month before the Pebble Time. Reviewers highlighted the Pebble Time's inability to respond to messages as a critical weakness when compared to the Apple Watch. In a July 2015 review, one technology website described the many advantages the Pebble Time had over the Apple Watch, including that it "feels great . . . and fits comfortably," whereas the Apple Watch "didn't sit like a watch" and "didn't feel natural," as well as the fact that the Pebble Time "far outclasses the Apple Watch" in terms of battery life, as it lasted five days compared to the Apple Watch's one.[7] Moreover, the Pebble Time cost only $149, compared to the Apple Watch at $349. Despite these advantages, the reviewer concluded by noting the harmful effect of Apple's messaging restrictions:

> For basic notifications, they both tick most boxes. However if you want full support you're best off going with the Apple Watch as with it you can not only view messages, but act upon them. That's a shame, but it's more the fault of Apple's tight hold over the iOS ecosystem rather than Pebble.[8]

34. Pebble eventually found a way to evade Apple's restrictions on text messaging, albeit imperfectly. In November 2015, Pebble announced that certain AT&T wireless customers would be able to use their Pebble Time devices to dictate voice replies to text messages received on their iPhones—a solution Pebble secured only by negotiating directly with AT&T. Even then, restrictions imposed by Apple meant that the sent messages would not appear in the iPhone messaging app after being sent, causing confusion in text conversations if the user chose to respond from his smartwatch first, and his iPhone later. Moreover, the feature could not be used with group

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[7] Michael Sawh, *Pebble Time vs Apple Watch: Which is the smartwatch to buy?*, Trusted Reviews (July 9, 2015), https://www.trustedreviews.com/opinion/pebble-time-vs-apple-watch-2929399.

[8] *Id*.

messages. Nonetheless, technology website The Verge reported that Pebble's solution "addresses one of the biggest limitations of using a Pebble (or any non-Apple smartwatch)."[9] In the years since, Apple has eliminated this workaround too by imposing additional restrictions discussed herein.

35. While Pebble was negotiating workarounds with cell carriers, it was simultaneously asking its users to "let Apple know that they would like to see an iOS Messages API, so that we can provide a more universal solution that integrates Pebble replies with iPhone's Messages app."[10] Yet Apple maintained its restrictions on its private APIs and imposed new ones, frustrating competing smartwatches' efforts to integrate iPhone messaging in the way the Apple Watch could. Apple's internal emails, discussed in more detail below, show that it restricted messaging interoperability not for any technological or security reason, but to advance expressly anticompetitive ends.

36. Apple took other steps to thwart competition from Pebble. For example, Apple reportedly refused to approve the Pebble Time iOS app ahead of the launch of the Pebble Time smartwatch, just weeks after the release of the Apple Watch. As one technology website explained, "Despite its official release at the end of May [2015], Pebble's new Pebble Time watch [was] not yet fully functional for iPhone users" one week after its release, "as its required iOS synchronization app [was] not yet available in the App Store."[11] Citing the dates it submitted its

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[9] Dan Seifert, *Pebble Time can now reply to text messages with an iPhone*, The Verge (Nov. 23, 2015), https://www.theverge.com/2015/11/23/9788146/pebble-time-quick-message-reply.

[10] Internet Archive, Pebble Blog, *Dive Into New Health and Text Features with Pebble's v3.12 Software*, (May 10, 2016), https://web.archive.org/web/20160703144632/https:/blog.getpebble.com/2016/05/10/fw3-12/.

[11] Mark Gurman, *Pebble blames Apple for delayed iOS Pebble Time app as first backers receive watches*, 9to5Mac (June 3, 2015), https://9to5mac.com/2015/06/03/pebble-blames-apple-for-delayed-ios-pebble-time-watch-app-as-first-backers-receive-watches/.

app to the App Store, Pebble alleged that Apple intentionally delayed the app's approval, and described the delay as "obstruction" designed by Apple to undermine Pebble's competing smartwatch.[12] Shortly after this delay was widely reported, and Pebble users began criticizing Apple on Twitter, Apple approved the Pebble Time app.[13]

37. Apple also restricted access to APIs that would enable Pebble users to take action on iPhone notifications delivered to the device. For example, iPhone users could see on their Pebble that an email had arrived, but could not act on that notification to delete the email—as they could have on an Android-connected Pebble. In a November 2015 review of the Pebble smartwatch, The Verge complained that the Pebble Time "still doesn't have as many options to take action on notifications from an iPhone as it does on Android."[14]

38. The effect of these and other restrictions by Apple took a devastating toll on Pebble. The problems were captured in a 2015 review of the Pebble Time smartwatch on technology website ZDNet:

> Paired with the Asus ZenFone 2, which runs Android 5.0, Pebble Time is handy. I've responded to incoming texts by voice and canned answers and I've triaged email by archiving useless messages. Then I switched phones. As soon as I put my SIM card in an iPhone 6 for some app testing and then paired the Pebble Time, it was like I was wearing a completely different smartwatch, and not in a good way. Gone were mostly all notification actions, save for the ability to dismiss them. No more replying to texts, either by voice or by pre-programmed responses. . . . [T]rying to use the Pebble Time with an iPhone – especially after using it with an Android handset – was like being woken by someone dumping a bucket of cold water [on] my head. To say it's been frustrating is an understatement. In fairness, I can't really blame Pebble here. . . . The issue is that no third-party smartwatch or accessory for an iPhone is going to have as much freedom as Apple's own. The best software bits are typically reserved for Apple's own products. All of the "missing" notification actions on the Pebble Time, for example, are readily

[12] *Id.*

[13] *Id.*

[14] Dan Seifert, *Pebble Time can now reply to text messages with an iPhone*, The Verge (Nov. 23, 2015), https://www.theverge.com/2015/11/23/9788146/pebble-time-quick-message-reply.

> available on the Apple Watch. Pebble might be able to add some of these features in the future, but only if Apple's software allows for it.[15]

39. The reviewer predicted that Pebble's experience was "a precursor" to what would happen if Google added iOS support for smartwatches on its Wear OS platform: "You won't likely get the full smartwatch experience there either."[16] As early as 2015, this reviewer saw Apple's brazenly anticompetitive conduct in the smartwatch market as a foregone conclusion. Unfortunately, he would be proven right.

40. Pebble continued to release devices and compete head-to-head with Apple in 2016, but Apple's restrictions on iOS-connected devices took a toll. In a June 2016 review, just six months before Pebble's demise, reviewers comparing Pebble's latest offering to the Apple Watch reported a close contest. According to one reviewer, both devices were "well built, with quality construction," and the Pebble Time Round was $100 cheaper, significantly thinner and lighter, had better battery life, and was far easier to read in sunlight.[17] Nonetheless, the reviewer ultimately favored the Apple Watch, citing, among other things, "the tight integration" with his iPhone.[18]

41. In December 2016, Pebble announced it was insolvent. The company never released another smartwatch. Its intellectual property was acquired by Fitbit (which itself was subsequently acquired by Google). Restrictions imposed by Apple were a significant cause of Pebble's failure. With the release of the Apple Watch in 2015, iOS users were faced with the choice of purchasing a smartwatch with notification support that could send text messages

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[15] Kevin Tofel, *Pebble Time and Android? Great! With an iPhone, not so much*, ZDNet (June 12, 2015), https://www.zdnet.com/article/pebble-time-with-android-vs-iphone-ios/.

[16] *Id.*

[17] Brad Moon, *Apple Watch Vs. Pebble Time Round: Hands-On Showdown*, Forbes (June 22, 2016), https://www.forbes.com/sites/bradmoon/2016/06/22/apple-watch-vs-pebble-time-round-hands-on-showdown/?sh=1637f1d82de2.

[18] *Id.*

seamlessly with the iPhone's messaging app or using a device with limited notification support where they would either lack the ability to send messages or, in certain cases, be able to send messages with limited functionality. Despite praise for Pebble devices, and Pebble going to extreme lengths to work around Apple's restrictions, review after review observed that the iOS-connected Pebble simply lacked the Apple Watch's capabilities. iPhone customers who wanted a full-featured smartwatch had little choice but to opt for the Apple Watch.

42. Apple has maintained the restrictions that ultimately sank Pebble; but it has also strengthened these restrictions, and added new ones as well. For instance, as discussed further below, Apple closed off the ability of smartwatches after Pebble to negotiate with carriers to provide messaging services, and now requires users to *turn off iMessage* (disabling iOS's core messaging platform) if they want to take advantage of such contracts between a third-party smartwatch maker and cellular carriers. Apple's release of iOS 13 long after Pebble's demise also introduced new notification restrictions, detailed below, that further degraded iPhone owners' experiences of their third-party smartwatches.

43. As a result of these and other restrictions, the story of Pebble has since played out for competitor after competitor in the iOS-connected smartwatch market. Over the last decade, a number of companies have developed iOS-connected smartwatches with the intention of competing with Apple and winning over iPhone users. Among these have been deep-pocketed software and hardware manufacturers, such as Motorola, Samsung, and Google, established device companies such as Garmin and Fitbit, and leading watch brands such as Fossil. Yet none of these competitors has loosened Apple's grip on the market for iOS-connected smartwatches. Motorola went from a market leader in 2014 to exiting the market two years later, having been harmed by Apple's anticompetitive software updates. Samsung developed widely praised smartwatches

superior to the Apple Watch in many respects, but could not gain market share among iOS users with smartwatches that performed far worse on iOS devices due to Apple's restrictions. Google, meanwhile, stated expressly that Apple's iOS API restrictions were the reason they chose not to compete with the Apple Watch, and to instead develop smartwatches only available to Android smartphone owners. All of this anticompetitive conduct is described in detail below.

III. Anticompetitive Conduct

44. Apple limits competition from actual and potential Apple Watch competitors in a variety of ways. Among other conduct, Apple disrupts the functioning of competing devices with software and hardware updates; restricts access to key iOS APIs; ensures that competing devices suffer from various performance and connection issues; and exercises its control over the App Store in a manner that harms smartwatch competition.

A. iPhone and iOS Updates Disrupt Competing Smartwatches

45. A frequent problem for Apple Watch competitors is that new iPhones and iOS software updates introduce bugs and connection issues that degrade competing smartwatches' performance—or in some cases render the devices unable to connect to the iPhone altogether. One of the earliest iOS-connected smartwatches was the Moto 360, made by Motorola. In a 2014 review, The Verge praised the Moto 360, describing it as the best smartwatch on the market.[19] Then, in September 2016, The Verge reported that after the release of the iPhone 7, the Moto 360 was "simply unable to pair" with the latest iPhone.[20] The article explained that the same problem affected Fossil and other smartwatches as well, and at the time of writing had persisted for weeks.

[19] David Pierce, *Moto 360 review*, The Verge (Sept. 5, 2014), https://www.theverge.com/2014/9/5/6108947/moto-360-review.

[20] Chris Welch, *Many Android Wear watches aren't working with the iPhone 7*, The Verge (Sept. 29, 2016), https://www.theverge.com/circuitbreaker/2016/9/29/13107836/apple-phone-7-android-wear-problems-moto-360.

The reporter described his inability to pair his iPhone to his Motorola smartwatch as "annoying" and said the experience "has led me to take a serious look at [the Apple Watch] Series 2."[21] At the end of 2016, Motorola announced it would exit the smartwatch business—at least temporarily. It did not release another smartwatch for three years.

46. The same 2016 article from The Verge reported that the release of iOS 10 had caused "compatibility issues between Android Wear" smartwatches and iPhones updated to the new operating system.[22] Compatibility issues caused by Apple's software updates—which it automatically installs on users' iPhones—are a frequent occurrence and cause immense frustration for iPhone owners with third-party smartwatches. After the release of iOS 14 in September 2020, for instance, Garmin users observed that their smartwatches would permanently disconnect whenever they moved out of range of their smartphone, failing to automatically reconnect once back in range as smartwatches ordinarily do. Users reported that Garmin's suggestions were not immediately able to fix the problem. One user concluded based on the "nightmare" experience that "Garmin should say that their watches are not compatible with iphone."[23] Garmin users have reported comparable problems after other iOS updates, including being unable to receive notifications on their smartwatch after updating their iPhone to iOS 16 in 2022, and being unable to reconnect their smartwatch to their iPhone after updating to iOS 17 in 2023.

47. Even if competing smartwatch makers are able to address these problems with updates or workarounds, the inevitable user frustration causes serious harm to Apple Watch

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[21] *Id.*

[22] *Id.*

[23] Garmin, *Garmin Connect loses connection, but still connected to iPhone*, https://forums.garmin.com/apps-software/mobile-apps-web/f/garmin-connect-mobile-ios/239623/garmin-connect-loses-connection-but-still-connected-to-iphone.

competitors. Meanwhile, the Apple Watch experiences none of these problems following iPhone or iOS updates. Upon information and belief, Apple is aware that its software and hardware updates will disrupt and degrade the operations of competing smartwatches. Apple also refuses to share sufficient information about its iPhone and iOS updates such that smartwatch competitors can ensure their device operations are not disrupted by the changes to Apple hardware and software. There is no technical or otherwise legitimate reason for Apple's conduct; instead, Apple knowingly degrades iOS users' experiences of competing smartwatches to gain a competitive advantage over other makers of iOS-connected smartwatches.

B. Apple's Use of API Restrictions to Limit Smartwatch Competition

48. As outlined above, to connect a third-party smartwatch to an iPhone, Apple requires that the smartwatch maker distribute a iOS app over the Apple App Store. In turn, to distribute iOS apps, Apple requires companies to sign a non-negotiable Developer Program License Agreement (DPLA), which requires that the developers use public APIs "in the manner prescribed by Apple," and prohibits them from using "private" APIs. Apple thus conditions the ability to sell smartwatches to iPhone owners on smartwatch manufacturers agreeing not to make use of Apple's private APIs or use public APIs in a manner contrary to Apple's stated preferences. In other words, Apple forces makers of iOS-connected smartwatches to agree not to compete with the Apple Watch along certain key dimensions if they want to sell devices to iPhone owners at all. Some of these key dimensions along which Apple has prevented competition are described in the sections that follow.

49. In each instance, Apple's restriction serves no rational purpose beyond suppressing competition. iPhone owners, and in turn Apple, would benefit from having the ability to use third-party smartwatches for the critical functionalities described below. Yet Apple restricts iPhone

owners' access to these functionalities in order to suppress competition with its own Apple Watch. In many instances, moreover, Apple has used software updates or changes to the iPhone to disrupt the prior smooth functioning of third-party iOS-connected smartwatches. Unnecessarily and intentionally disrupting its own customers' experiences of their third-party smartwatches serves no rational purpose beyond degrading the ability of third-party smartwatches to compete with the Apple Watch, and harms consumers and competition in the process. Apple knows that few customers can or will abandon the iPhone in order to improve the functioning of their third-party smartwatch. It can therefore exploit this market power, sacrifice the limited number of smartphone customers it may lose as a result of its smartwatch restrictions, and foreclose competition in the vast majority of the iOS-connected smartwatch market.

1. Apple's Restrictions on Messaging APIs

50. Perhaps the most impactful restriction Apple has imposed on competing smartwatches relates to text messaging. Apple restricts access to a variety of its messaging APIs, including the APIs required to send SMS text messages and the APIs required to send messages over Apple's iMessage platform. As with all iOS APIs, competing smartwatch manufacturers cannot access the private messaging APIs because they are not disclosed—and even if competitors knew how to access the private APIs, they are prohibited from doing so by DPLAs Apple requires them to sign.

51. As outlined in the discussion of Pebble above, Apple has long restricted access to messaging APIs that would allow competing smartwatches to send and reply to text messages. Apple's restrictions are still in place today and prevent all third-party smartwatches from offering iPhone users the same fully functional messaging capabilities available on the Apple Watch—or,

indeed, the messaging capabilities available on the same third-party smartwatches when connected to an Android smartphone.

52. It has long been technically possible for non-iOS devices to connect to and integrate with the iPhone Messages app and/or the iMessage platform. In his deposition in the *Epic Games v. Apple* trial, Apple Senior VP Eddy Cue acknowledged that Apple could have enabled "cross-compatibility with the iOS platform so that users of both platforms would have been able to exchange messages with one another seamlessly," but that Apple decided against doing so.[24]

53. Internal emails show that Apple's reasons for declining to allow competing devices to connect to iMessage are expressly anticompetitive. Emails between Apple executives in 2013 show that Mr. Cue advocated for messaging integration with non-Apple devices, and for Apple to "make [iMessage] the industry standard" because it was "the best messaging app." In response, Apple's Senior VP of Software Engineering Craig Federighi wrote that allowing third-party devices to access and integrate with iMessage would "simply serve to remove [an] obstacle to iPhone families giving their kids Android phones."[25]

54. In the years since, Apple has repeatedly decided, for anticompetitive reasons, not to allow its competitors access to iMessage. In an email from March 2016, approximately one year after the release of the Apple Watch, an Apple employee described the "serious lock-in" resulting from iMessage incompatibility on non-Apple devices, calling it "the #1 most difficult" aspect of leaving the "Apple universe." In response to this email, Apple executive Phil Schiller wrote to

[24] Findings of Fact and Conclusions of Law Proposed By Epic Games, Inc. at 15, *Epic Games, Inc. v. Apple Inc.*, No. 4:20-cv-05640-YGR-TSH (N.D. Cal. Apr. 7, 2021).

[25] Email from Senior VP of Software Engineering Craig Federighi (Apr. 8, 2013).

CEO Tim Cook, "[M]oving iMessage to Android will hurt us more than help us, this email illustrates why."[26]

55. Recent events show that Apple will fight ruthlessly to prevent cross-compatibility between iOS messaging and third-party devices. In 2023, Pebble co-founder Eric Migicovsky decided to challenge the very iMessage restrictions that had contributed to the demise of his early smartwatch company. Migicovsky and his co-founder released an app called Beeper Mini, which promised to enable Android smartphone users to message with iOS device owners on the iMessage platform. As an indication of the value users place on this ability, Beeper Mini originally charged a $2/month subscription.

56. Beeper Mini garnered significant media and consumer attention, but less than a week after its launch, Apple disabled it. Apple claimed that Beeper Mini posed security concerns, but the claimed security concerns were baseless. Beeper Mini made messaging between Android and iOS device users *more* secure by ensuring those messages were encrypted, as opposed to taking place over non-encrypted SMS messaging. Senator Elizabeth Warren made this point in a tweet about Beeper Mini: "Green bubble texts [between Android and iOS devices] are less secure. So why would Apple block a new app allowing Android users to chat with iPhone on iMessage? Big Tech executives are protecting profits by squashing competitors."[27] The day after this tweet, following significant blowback, Apple allowed the Beeper Mini app to continue operating, albeit in a degraded format: users would be unable to use full messaging capabilities with their phone number and would instead have to rely on their email address. The disruption to its business caused

[26] Email from Apple Executive Philip Schiller (Mar. 3, 2016).

[27] Elizabeth Warren (@SenWarren), TWITTER (Dec. 10, 2023, 3:05 PM), https://twitter.com/SenWarren/status/1733956234200445130.

Beeper Mini to cancel the $2/month subscription charge because, in the company's words, "Things have been a bit chaotic, and we're not comfortable subjecting paying users to this."[28]

57. Apple's continued restriction on access and integration with the iMessage platform worked as intended in the market for iOS-connected smartwatches. Even as manufacturers put out sophisticated, price competitive devices that could be paired with an iPhone, reviewers and consumers recognized that the inability to respond to messages was a fatal flaw.

a. Messaging Restrictions Harmed Competition from Fitbit Smartwatches

58. Fitbit, the maker of a popular fitness tracker, developed its first smartwatch in 2017. Since then, it has developed a series of well-regarded smartwatches that are compatible with both iPhones and Android smartphones. In 2018, Fitbit released the Versa. It was $199 (the Apple Watch Series 4 released that year cost $399), had four days of battery life (the Series 4 had 18 hours), and was described as lightweight and comfortable (the Apple Watch is often criticized for being relatively heavy and uncomfortable). Yet Apple's messaging restrictions limited the Versa's appeal among iPhone owners. In a 2018 review of the Versa, The Verge wrote: "Text message notifications from iOS, in particular, are frustrating. They're not remotely actionable on the watch, meaning there's no way to respond to them."[29]

59. Fitbit made it clear that iPhone owners' inability to respond to messages was the result of Apple's restrictions, not its own choices or technical limitations. After the Versa's release, a user on Fitbit's official forum asked, "Will the Versa text message reply options ever work with

[28] Eric Migicovsky and Brad Murray, *Beeper Mini Is Back*, Beeper Blog (Dec. 11, 2023), https://blog.beeper.com/p/beeper-mini-is-back.

[29] Lauren Goode, *Fitbit's Versa is its best smartwatch yet*, The Verge (Mar. 26, 2018), https://www.theverge.com/2018/3/26/17163210/fitbit-versa-smartwatch-review-wearable-tech-apple-watch.

iPhone? Or will that remain an Android only feature?" A Fitbit forum moderator explained that Apple restricted Fitbit from offering its customers the ability to respond to text messages received on the iPhone:

> We are working with partners to find ways to bring quick text replies to messaging apps for iOS . . . we hope to share more on this in the future. We'd love to be able to offer quick text replies to our iOS users now, but Apple operates a closed ecosystem that doesn't allow us to deliver this feature at this time.[30]

60. This deficiency has continued to plague Fitbit smartwatches. In 2021, Fitbit was acquired by Google. The company's next smartwatch, the Sense 2, was compatible with iPhones and Android smartphones alike. The Sense 2 included a number of valuable features not available on the iPhone, such as continuous stress tracking, five days of battery life, and integration with Amazon Alexa and Google Assistant. A 2022 PC Magazine review of the Fitbit Sense 2 praised many of its features and gave the device four stars; but the review observed that iPhone users could not respond to text messages, and said that for iPhone users looking for "robust calling and messaging features," their "best bet" would be the Apple Watch.[31]

b. Messaging Restrictions Harmed Competition from Garmin Smartwatches

61. Fitbit is not alone. Apple's messaging restrictions have substantially limited the ability of all smartwatches to compete with the Apple Watch. Review after review downgrades Apple Watch competitors for their inability to reply to incoming text messages. In a 2021 review, The Guardian described Garmin's Venu 2 smartwatch as a "slick, attractive smartwatch that offers world-class fitness features and still lasts longer than big-name competitors such as the Apple

[30] Fitbit Community, https://community.fitbit.com/t5/Other-Versa-Smartwatches/Versa-text-replies-and-iPhone/m-p/2621821.

[31] Angela Moscaritolo, *Fitbit Sense 2 Review*, PC Magazine (Oct. 25, 2022), https://www.pcmag.com/reviews/fitbit-sense-2.

Watch."[32] The review observed, however, "You can send quick replies to message notifications when the watch is connected to an Android phone, but not an iPhone."[33]

62. Garmin has negotiated deals with cellular carriers so that iPhone owners with certain Garmin smartwatches can purchase a subscription from Garmin and be able to send text messages using their phone number. Yet due to iOS API restrictions detailed in the next section, this functionality requires that iPhone owners *turn off iMessage* so that they are no longer able to participate in the default messaging platform used by a majority of American smartphone owners. This is not merely an unattractive option for iPhone owners; it actually makes Garmin's text messaging workaround self-defeating: iPhone owners cannot integrate their smartwatch with iPhone text messaging because using a Garmin smartwatch to send text messages requires that they abandon the iPhone's text messaging platform in the first instance.

c. Messaging Restrictions Harmed Competition from Wear OS Smartwatches

63. Although Google began manufacturing smartwatches in 2022, it has long been the developer of the largest smartwatch operating system outside Apple's WatchOS. Google initially called this operating system "Android Wear," but thereafter rebranded it to "Wear OS." Motorola, Samsung, Fossil, and many other smartwatch manufacturers have used Wear OS as the foundation for some or all of their smartwatches.

64. At first, Wear OS was not compatible with iOS, a decision Google attributed to Apple's API restrictions. In 2014, Android Wear product manager Jeff Chang told the Huffington Post that Google was interested in expanding to iOS, but explained, "It's not always completely

[32] Samuel Gibbs, *Venu 2 review: can Garmin make a good smartwatch?*, The Guardian (July 5, 2021), https://www.theguardian.com/technology/2021/jul/05/venu-2-review-can-garmin-make-a-good-smartwatch.

[33] *Id.*

up to us right? There are technical constraints, API constraints so we are trying really hard." He added, "We would love to have Android Wear reach as many people as possible but I'll just say that it's not 100 percent under our control."[34] As a result of these limitations, the earliest Wear OS smartwatches from Samsung and other manufacturers were not iOS-compatible.

65. In 2015, Google made Wear OS compatible with iOS and released an iOS app that enabled Wear OS devices to connect to iPhones. Yet as a result of Apple's messaging API restrictions, as well as the other API restrictions discussed below, iOS-connected Wear OS devices struggled. In a 2017 article, The Verge explained these limitations and attributed them to Apple policies:

> Android smartwatches have worked with the iPhone for a year and half now, but with extremely limited functionality. Those limitations come mainly from Apple policies: no access to iMessage replies and difficulties getting third-party apps and faces on the watch.[35]

66. The Verge went on to explain that, with the 2017 release of Wear OS 2.0, Google had sought to "run[] around" Apple's "roadblocks to features" with technical improvements, including installing an app store directly on Wear OS devices. The trouble, the article observed, was that "for everything that works, there are several things that really don't." It went on to emphasize the fact that Apple was choosing *by policy* to restrict non-Apple Watch smartwatches from "access[ing] iMessages beyond seeing incoming notifications arrive."[36] The article concluded bluntly:

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[34] Thomas Tamblyn, *Android Wear For iOS Not Ruled Out Hints Google Exec*, The Huffington Post UK (Oct. 23, 2014), https://www.huffingtonpost.co.uk/2014/10/23/google-android-wear-ios_n_6035512.html.

[35] Dieter Bohn, *Android Wear with an iPhone still can't compete with the Apple Watch*, The Verge (Feb. 21, 2017), https://www.theverge.com/2017/2/21/14678288/android-wear-2-0-iphone-review-apple-watch.

[36] *Id.*

> If you're interested in a smartwatch paired to an iPhone, there's only one question: why should you get something besides the Apple Watch? For Android Wear, the answer is the same today as it was 18 months ago: if you want a round watch instead of a square one. That's kind of it. . . . I will happily grant that Google is facing an uphill battle trying to get Android Wear working with what is essentially a hostile platform – iOS – one that's not at all interested in making life easy for third-party smartwatches. . . . I prefer round watches, but not as much as I prefer having a smartwatch that doesn't remind me of its profound limitations every time I get a notification.[37]

d. Messaging Restrictions Harmed Competition from Samsung Smartwatches

67. The inability to send and reply to text messages placed Samsung smartwatches at an immense disadvantage when competing to win over iPhone owners. Before it adopted Wear OS in 2021, Samsung produced iOS-compatible smartwatches under its Tizen OS. These smartwatches were highly reviewed. Technology reviewer Tom's Guide described Samsung's Galaxy Watch Active 2 as "a worthy Apple Watch rival."[38] The device retailed for $150 less than the Apple Watch Series 5, was described as more "stylish and elegant" than the Apple Watch, and had more than twice the Apple Watch's battery life.[39] Samsung improved on other Apple Watch features as well. Tom's Guide praised the Galaxy Watch 3, for instance, for having a keyboard that provided far superior text input than the Apple Watch.[40] Yet users could not use this keyboard to send or reply to text messages if they had an iPhone. Samsung explained on its website that "[s]end and reply functions" were "not supported" due to "compatibility limitations" on iOS.[41]

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[37] *Id.*

[38] Caitlin McGarry, *Samsung Galaxy Watch Active 2 review*, Tom's Guide (last updated Aug. 11, 2021), https://www.tomsguide.com/reviews/samsung-galaxy-watch-active-2.

[39] *Id.*

[40] Kate Kozuch, *Samsung Galaxy Watch 3 review*, Tom's Guide (last updated Oct. 12, 2022), https://www.tomsguide.com/reviews/samsung-galaxy-watch-3.

[41] Samsung, *Samsung Galaxy Watch not receiving message notifications from iPhone*, https://www.samsung.com/us/support/troubleshooting/TSG01202131/.

68. The effect of this messaging restriction on the Galaxy Watch's ability to compete for iPhone users is apparent from reviews at the time. In a positive review of the Galaxy Watch 3, The Verge explained:

> If you're hoping to use the Watch 3 with an iPhone, my suggestion is: don't. The messaging experience is poor, and the watch will just do fewer things than when it's connected to an Android device. Just get an Apple Watch.[42]

69. This is precisely the review Apple counts on when it limits the capabilities of competing smartwatches by ensuring that they cannot integrate with critical iPhone features. Samsung and Wear OS promised to pose a significant challenge to Apple's dominance in the market for iOS-connected smartwatches. Yet Apple's restrictions meant that Wear OS and Samsung smartwatches were a disappointment for iPhone users, and they failed to gain traction. In 2021, Samsung launched the Galaxy Watch 4 on Wear OS 3 and stopped supporting iOS compatibility.

e. Messaging Restrictions Harmed Competition from Google Smartwatches

70. Google did not actually manufacture a Wear OS smartwatch until 2022, when it launched the Pixel Watch on Wear OS 3. The Pixel Watch received positive reviews—it was less expensive, more comfortable, and had longer battery life than an Apple Watch, and it was described by one Wired reviewer as "arguably the prettiest full-featured smartwatch I've ever seen."[43] Yet the Pixel Watch was not iOS-compatible.

71. Google publicly stated that it decided not to compete with Apple in the iOS-connected smartwatch market due to Apple's messaging API restrictions. When asked on a media

[42] Dan Seifert, *Samsung Galaxy Watch 3 review: time for a change*, The Verge (Aug. 14, 2020), https://www.theverge.com/21368752/samsung-galaxy-watch-3-review-price-specs-features.

[43] Julian Chokkattu, *Google's Long-Awaited Pixel Watch Is Finally Here*, Wired (Oct. 6, 2022), https://www.wired.com/story/google-pixel-watch-features-release-date-price/.

call why the Pixel Watch would not be iOS-compatible, Google reportedly explained that "the main reason was that they didn't feel like they could get the integration they wanted, due to Apple's lack of API for the messaging (both models) and phone number sharing pieces specifically (cellular models)."[44] The phone number sharing restriction is discussed in more detail below.

72. The decision by Google not to compete in the iOS-connected smartwatch market shows the broad chilling effect of Apple's API restrictions on even the most promising and well-resourced potential competitors. If they cannot offer users a full-featured smartwatch, many device manufacturers will simply choose not to compete with the Apple Watch. The result is that many of the most sophisticated smartwatches on the market are no longer iOS-compatible, reducing the choice available to iPhone owners and enabling Apple to charge supracompetitive prices in the absence of robust competition.

2. Apple's Restrictions on Phone Number Sharing

73. In addition to Apple's restrictions on messaging APIs, the other reported reason Google decided not to compete in the iOS-connected smartwatch market was Apple's restrictions on phone number sharing necessary to offer a cellular-connected smartwatch.[45]

74. Approximately 20 percent of Apple Watches are sold with cellular capability. This allows the Apple Watch to make calls, send and receive text messages, and access the internet via a data connection even when the iPhone it is typically connected to is not nearby. In the absence of cellular capability, Apple Watch users need to either be within 30-40 feet of their iPhone or be on the same Wi-Fi connection to remain paired.

[44] DC Rainmaker, *Google's Pixel Watch Hands-On: Here's What You Need to Know* (Oct. 6, 2022), https://www.dcrainmaker.com/2022/10/googles-pixel-watch.html.

[45] *Id.*

75. Apple allows an iPhone owner to use the same cell phone number for calls and text messages from her Apple Watch that she uses for calls and text messages from her iPhone. This means that a user of a cellular Apple Watch can have a fully integrated text messaging experience: she can send and receive messages on her Apple Watch, regardless of where her iPhone is, and see those messages later on her iPhone. This capability is particularly important for runners, hikers, swimmers, cyclists, and other endurance athletes who want to be able to set off on a long workout, not bring their iPhone along, but retain the ability to make calls and send text messages.

76. In the last few years, Garmin sought to work around Apple's text messaging restrictions by negotiating data deals with cellular carriers and offering its customers the ability to send and reply to text messages from their Garmin device. Garmin's user base includes a large number of runners and endurance athletes, making this capability especially important. Yet Apple's restrictions, including restrictions on messaging APIs, mean that iPhone owners cannot use their existing cell phone numbers to call and text from their Garmin smartwatch unless they *turn off iMessage* on their iPhone. This means Garmin is unable to provide its users a smartwatch that can integrate with iPhone text messaging: iPhone owners who want to send text messages from their Garmin device must abandon the iPhone's messaging platform to do so. The only alternative for iPhone owners with Garmin devices is to choose a new cell phone number for making calls and sending messages from their Garmin smartwatches. This is a nearly worthless alternative, since their friends and family would not know to contact this number and would not know who was contacting them when they received calls or text messages from it.

77. Apple's restrictions on phone number sharing prevent all third-party smartwatches from providing their users integrated text messaging with the iPhone. Apple could permit Garmin and other iOS-connected smartwatches the same access to calling and messaging APIs that the

Apple Watch has, allowing for seamless messaging between an iPhone and a smartwatch from the same cell phone number. There is no legitimate technical or security reason Apple must require iMessage to be turned off before a Garmin smartwatch can share a cell phone number for purposes of calling and texting. This restriction also renders data service on competing smartwatches sufficiently worthless that other iOS-connected smartwatch competitors are not even tempted to pursue the expensive and time-consuming process of negotiating with cell carriers in order to work around Apple's messaging API restrictions. Finally, it ensures that no competitor to the Apple Watch can provide users with a smartwatch that can be worn independent of the iPhone and remain fully functional—a capability smartwatch users demand and highly value in the Apple Watch itself.

3. Apple's Restrictions on Notification APIs

78. Smartphones today are flooded with notifications. Smartphone users receive tens, if not hundreds, of notifications from multiple apps throughout the day, ranging from notifications of calls and text messages, to New York Times alerts and Instagram messages, to offers for deals on Amazon. Another critical function of smartwatches is the delivery and management of these notifications received on the smartphone. To serve as an effective notification device, a smartwatch must be able to not just deliver user notifications, but enable users to receive only those notifications they want, and act on the important notifications once received. According to a 2023 report by Counterpoint research, checking notifications was tied with health and activity tracking as the most-used smartwatch feature by U.S. consumers, each ranking just ahead of messaging and calling, the third most-used feature.

79. Apple Watch users have immense control over the delivery of app and message notifications to their watches, as well as the handling of those notifications when they arrive.

Among other capabilities, an Apple Watch user can: (a) ensure that notifications only go to the Apple Watch when the iPhone is locked, and are delivered to the iPhone when it is in use; (b) promptly act on notifications when they arrive; (c) set notifications to appear publicly only on the smartwatch, and not on the phone screen; and (d) ensure that every notification on the iPhone is not delivered to the Apple Watch as well by picking and choosing those app notifications that are delivered to the watch. These critical functions ensure that the Apple Watch is a useful tool for monitoring and managing notifications, as opposed to just another distraction.

80. Yet Apple restricts access to the APIs that make this efficient handling of notifications possible. In doing so, Apple has ensured that the experience of managing notifications on iOS-connected smartwatches is significantly degraded. As a result of Apple's restrictions, users who purchase competing smartwatches (a) are unable to coordinate with the iPhone so that they only display notifications when the phone is locked; (b) are unable to quickly act on notifications, such as calendar invites, when they receive them; (c) are unable to avoid publicly exposing notifications on their smartphone screen if they want to receive notifications on their watch; and (d) in some cases cannot select the apps that deliver notifications to the watch, resulting in iPhone customers being barraged with app and message notifications they would rather not receive.

81. Each of these restrictions weighs more heavily on different users, but they sum to consistent reports from customers and product reviews that notifications do not work well on third-party iOS-connected smartwatches—particularly when compared to the notification experience on the Apple Watch. This degraded notification functionality serves Apple's purposes by disrupting iPhone owners' experiences with competing smartwatches and making the Apple Watch a more attractive alternative.

a. Apple's Restrictions on the Ability to Tailor Notifications to iPhone Status

82. One of the primary benefits of a smartwatch is the convenient delivery of app and message notifications when a smartphone is locked. The fact that the smartwatch is on the user's wrist means that these notifications can be delivered subtly, such as with an unobtrusive vibration, allowing the wearer to quickly check and decide whether to act on the notification without the disruption of pulling out a phone.

83. For smartwatches to deliver this benefit, however, they must *streamline* notifications—not be a source of additional distraction. To this end, the Apple Watch has access to information about when the iPhone is locked, allowing it to only notify the wearer of a notification when he is not actively using his iPhone. Moreover, the Apple Watch allows notifications to be delivered *only* to the smartwatch when the iPhone is locked, meaning the iPhone does not ding or vibrate as well.

84. Third-party smartwatches are prevented from offering the same capabilities. Apple's restrictions on available notification APIs mean smartwatches are unable to tailor app or message notifications to whether the home screen of the iPhone is locked or unlocked, or set notifications to be delivered to the smartwatch only in particular circumstances. As a result of the first restriction, users of third-party smartwatches regularly complain that they receive iPhone notifications on their smartwatches even while they are staring at their iPhone. This can be incredibly disruptive: A smartwatch owner engaged in a lengthy text message conversation or group chat may receive 100s of vibrations or noisy notifications on her wrist while sending and receiving messages—and possibly additional dings and vibrations on her iPhone as well. Meanwhile, the second restriction on limiting notifications to only the smartwatch means that third-party smartwatch owners have to receive every notification on the iPhone *in addition to* their

smartwatch, causing them to hear double the dings, rings, and vibrations for every app or message notification when notifications on both devices are turned on.

85. The problems with these restrictions were well-summarized by a Garmin user on the Garmin Fenix Reddit forum three years ago:

> I recently bought Garmin 6X Pro and I am really annoyed when I use my phone (it's unlocked) and still receive notifications on my watch too. Is there any way how to mute notifications on my watch when phone (iphone, ios 14) is unlocked like it's set on apple watch?
>
> Also is there anyway how can I mute notifications on locked phone and receive them only on my watch? Ie. Same thing like on apple watch. Currently I receive notifications on my phone and then on my watch 1 sec later. That's quite annoying if I have phone on the desk and I receive two notifications of same thing.[46]

86. The top comment summarized the source of the problem succinctly: "As far as I can tell, Apple handicaps the notification system to a Garmin device. It's only able to do exact[ly] what the iOS notification allows. It's really awful and this is 1000% better on Android."[47] There is no legitimate technical or security justification for restricting available notification APIs in this manner. Instead, Apple intentionally imposes its restrictions to generate precisely these sorts of user complaints—and so that iPhone owners see those complaints and opt never to purchase competing smartwatches.

b. Apple's Restrictions on Actionable Notifications

87. Another set of notification APIs to which Apple has restricted access are those that allow users to take action on notifications they receive. For example, these APIs enable Apple Watch owners who receive notifications of calendar invites to accept or decline those notifications

[46] Reddit, *How to mute notifications on 6X pro while I use my phone?*, https://www.reddit.com/r/GarminFenix/comments/kqixf0/how_to_mute_notifications_on_6x_pro_while_i_use/.

[47] *Id.*

from their Apple Watch. Competing smartwatches lack this functionality, requiring iPhone owners to pull out their smartphone to act on the calendar notification after they receive it.

88. This restriction significantly degrades the value of third-party smartwatches as notification devices. Without the ability to quickly act on a notification, receiving the notification on the smartwatch is significantly less valuable, as the user must still take out his smartphone to handle it. By denying competitors access to the relevant notification APIs, Apple ensures that iPhone owners with competing smartwatches are denied access to actionable notifications. There is no technical or security justification for this restriction—it is just one more way Apple ensures competing devices appear clumsier and less useful when compared to the Apple Watch.

c. Apple's Restrictions on Private Display of Notifications

89. Apple released iOS 13 in September 2019. After iPhones automatically updated to the new mobile operating system, users learned that they could not receive notifications on their third-party smartwatches unless they permitted their iPhone to show previews of those notifications on their iPhone home screen. Although Apple justified this feature as a "privacy" measure, it was anything but. The result of this measure was that users could not privately receive text messages or other notifications on their smartwatches without publicly exposing the content of the same on their phone's home screen. Significantly, Apple imposed this requirement whether or not users wanted notifications on their smartwatch to be visible. Third-party smartwatch owners had no way to receive notifications *at all* unless they eliminated their ability to receive private messages and notifications on their iPhones.

90. This update caused predictable dismay among users of competing smartwatches. Garmin users took to the company's forums to complain: "What if we do not want our messages to show previews on our iPhones? I like many others want my texts to not display when they come

through. Is this going to be fixed? It was never an issue before…"[48] For some users, this update rendered their smartwatches unusable. iPhone owners who worked in healthcare, for instance, reported that the nature of their work meant they could not have notification previews publicly displayed on their smartphone screen.[49] Other iPhone owners accepted the degraded performance as an unfortunate reality, since not receiving notifications on their watch was not a good alternative: "Unfortunately now your phone will preview the text inside a message but worth it [in my opinion] to have it show on the watch too."[50] Apple continues to impose this restriction to this day.

91. This purported privacy update affected all third-party iOS-connected smartwatches. One user on Fitbit's community forum wrote:

> I'm so frustrated, I'm ready to sell my Fitbit and look into an Apple Watch. I just love the sleep feature. My versa lite quit giving me notifications after the ios13 update. My husband was able to turn on my on screen notifications for my phone and for some reason I started getting notifications on my Fitbit again. I hate people being able to read my text messages but, it will get me by until Fitbit gets with the program.[51]

This comment illustrates one of the most damaging aspects of Apple's conduct. Not only did Apple release a software update that disrupted the experience of iPhone owners with Fitbits, but Fitbit

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[48] Garmin, *ATTN: iOS Users with issues after updating to iOS 13*, https://forums.garmin.com/apps-software/mobile-apps-web/f/garmin-connect-mobile-ios/193204/attn-ios-users-with-issues-after-updating-to-ios-13/940113#940113.

[49] Garmin, *text message notifications not coming through after iOS 13 update*, https://forums.garmin.com/apps-software/mobile-apps-web/f/garmin-connect-mobile-ios/192559/text-message-notifications-not-coming-through-after-ios-13-update?pifragment-1286=1#pifragment-1286=11.

[50] Garmin, *Text message notification not appearing on watch (iPhone)*, https://forums.garmin.com/sports-fitness/sports-fitness/f/forerunner-645-645-m/192781/text-message-notification-not-appearing-on-watch-iphone/1103275.

[51] Fitbit, *Stopped seeing notifications after updating to iOS 13*, https://community.fitbit.com/t5/iOS-App/Stopped-seeing-notifications-after-updating-to-iOS-13/td-p/3779290.

owners *blamed Fitbit* for the lack of functionality, assuming incorrectly that it was a problem with Fitbit's software. This is an understandable conclusion when the customer sees that the Apple Watch has the very same functionality that the third-party smartwatch lacks. And even if the degraded feature is not itself a deal-breaker for the consumer, the reputation of the third-party smartwatch company is irreparably damaged, leading customers to opt for Apple products in the future.

92. There is no legitimate procompetitive purpose underlying Apple's conduct. Despite having the technical means to allow third-party smartwatches the same granular notification controls available on the Apple Watch, Apple restricts that capability to ensure iPhone owners have bad experiences on those devices—and choose the Apple Watch instead.

d. Apple's Restrictions on Tailoring Which Notifications Smartwatches Receive

93. Finally, Apple's API restrictions appear to limit the ability of certain smartwatch makers to tailor which app notifications they receive on their smartwatches.

94. Garmin is the smartwatch maker with the second highest share of the iOS-connected smartwatch market. Originally a GPS company, Garmin's smartwatches have developed a significant following among runners and other athletes. Garmin smartwatches are strong competitors with Apple Watches: they have far more sophisticated health and fitness tracking, superior GPS and mapping capabilities, greater durability, and battery life ranging from four to forty-five days longer than Apple Watches. Garmin also competes at all price points with Apple, offering smartwatches for hundreds of dollars less than the Apple Watch while also offering ultra-premium smartwatches comparable to the highest-end Apple Watch.

95. Garmin's popularity among athletes may have allowed it to hold on to the second highest share of iPhone users, but Apple's restrictions have taken a toll. This is apparent from the

market share data. Among smartwatch owners with Samsung and Motorola Android smartphones, Garmin has 16% and 18% shares, respectively. Among smartwatch owners with iPhones, Garmin's share is less than half that: just 7%.

96. Particularly for Garmin's athlete user base, it is important to be able to tailor the app notifications they receive on their smartwatches. A long-distance runner may want to be alerted mid-workout if his home security system is triggered, but not to see his friend's latest Snapchat or Instagram post. A hiker may want to receive notifications of calls from her work, but not of the latest deals on DoorDash. Yet Garmin users must choose between never receiving notifications from these apps on their iPhone—which would significantly degrade the experience of using these social media and food delivery apps—or receiving all these app notifications directly to their wrist throughout the day. Users of Garmin devices regularly complain about this restriction. Naturally, these users would prefer to tailor their notifications so that their smartwatch delivers only a certain set of essential or valuable notifications to their wrist, while the remaining notifications are delivered only to their iPhone. Yet Apple's restrictions mean that these users are presented with a Hobson's Choice: receive a given app's notification on your smartwatch, or receive no notifications from the app at all. This frustrating experience is a recurring complaint of iPhone users with Garmin smartwatches and, predictably, is not a problem for Apple Watch users—or for Android users with the same Garmin smartwatches.

97. Choosing to receive no notifications from a given app is not a reasonable alternative to receiving notifications on a smartwatch: apps such as Amazon use notifications on the iPhone to send users important updates, such as when packages have been delivered, but use the same notification functionality to inform them of new sales and discounts. Similarly, users rely on notifications from Uber and Uber Eats to inform them when a car or food has arrived, but receive

many other marketing notifications from these apps as well. iPhone owners who have little choice but to keep notifications for these apps turned on for their smartphone typically do not want to receive each of these notifications on their smartwatch too. Yet Garmin users cannot avoid a torrent of irrelevant app notifications.

98. The harm to Garmin's business is apparent from customer complaints. In a 2023 post on the Garmin Reddit forum, a user asked:

> How do I stop my watch from receiving all the same notifications my iPhone does? My watch vibrates all the time due to receiving the same notifications my phone does, instagram, news etc. Is it possible to choose which notifications I want to receive? Like messages would be nice, but Snapchat, not so much[.] I have a [Garmin] vivoactive 4.[52]

The top commenter responded, "On an iPhone, it's an all or nothing choice."[53] The next commenter wrote, "Sorry but no. This is the feature I hate the most."[54] In the same Garmin Reddit forum, another user's post highlights why this feature surely contributes to Garmin's lower market share among iPhone users compared to Android users:

> I just switched from an Android to an iPhone. On my Android, I was able to set notifications for certain apps, like the news, so that they would show on my phone but not on my watch (ex: I configured the news apps to only push alerts to my phone and not to my watch, but I configured the messages app to push notifications to my watch). Is there a way to do this on the iPhone? The [G]armin website makes it seem like notifications for iPhones are all or nothing – either on the phone AND on the watch or no notifications at all.[55]

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[52] Reddit, *How do I stop my watch from receiving all the same notifications my iPhone does?*, https://www.reddit.com/r/Garmin/comments/1593om9/how_do_i_stop_my_watch_from_recieving_all_the/.

[53] *Id.*

[54] *Id.*

[55] Reddit, *Notification settings for garmin watch/iPhone*, https://www.reddit.com/r/Garmin/comments/slyqtp/notification_settings_for_garmin_watchiphone/.

The top commenter replied: "On iOS it's all or nothing where on Android as you mentioned you could pick and choose what you wanted." Another commenter responded:

> [T]his is dreadful. i just moved from android to iphone. i definitely do not want all my notifications on my watch, just a few important ones. i could customise that on android. so seriously, on iOS, I have to have al[l] my notifications, or none of them... wondering why. is this another way apple tries to move people to their own watch rather than garmin[?][56]

99. In another Reddit thread from two years ago, a user on the r/Garmin forum wrote, "The only thing I miss (and I miss it a lot) from using the Garmin with android was being able to have granular control over app notifications sent to the watch."[57] Another user wrote, "I'm a recent iOS convert. The Android experience [with a Garmin smartwatch] is 10 time[s] better. From speed/performance, syncing, navigation, and notification customization."[58] As these comments demonstrate, the inability to tailor app notifications causes immense competitive harm to Garmin.

100. The ability to choose to receive certain iPhone notifications on one's smartwatch is available for Apple Watches, but upon information and belief, Apple has not made a similar functionality available to iPhone users with Garmin smartwatches. This is apparent from the fact that Garmin smartwatches, which run on Garmin's own operating system, are able to tailor notifications coming from Android devices. There is no technical or other procompetitive reason this functionality must be unavailable. Like all of the restrictions discussed herein, Apple's decision to limit notification tailoring harms *its own customers*, iPhone users, with no conceivable benefit beyond coercing those users to purchase Apple Watches instead of Garmin smartwatches.

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[56] *Id.*

[57] Reddit, *How do Garmin watches play with iOS?*, https://www.reddit.com/r/Garmin/comments/q3xe1d/how_do_garmin_watches_play_with_ios/.

[58] *Id.*

4. Apple's Restrictions on Digital Wallet APIs

101. Mobile wallets have become a core feature of smartphones. iPhone owners use Apple Wallet to store and use credit cards, transit cards, boarding passes, concert tickets, student IDs, government IDs, gift cards, and a variety of other essential items. A number of states allow residents to store and present their driver's license or state ID using Apple Wallet. Users can even present their license and boarding pass at certain TSA checkpoints using Apple Wallet.

102. The Apple Watch is integrated with an iPhone owner's Apple Wallet by default. This gives Apple Watch users the ability to seamlessly access payment cards, IDs, travel documents, and event tickets stored in their smartphone Apple Wallet from their Apple Watch. These Apple Watch users can quickly and easily use their watch to pay for coffee, enter the subway, or board a flight. In addition to providing easy access to important cards and tickets, a mobile wallet on a smartwatch can allow an iPhone user to access payment cards and important documents when leaving their iPhone at home, such as on a long run—or in the event their iPhone is out of battery, lost, or stolen.

103. Samsung and Google both make mobile wallets that work on smartphones and smartwatches alike. As evidence of the importance of mobile wallets for smartwatches, even Garmin—which does not make smartphones and has a far smaller user base—invested the significant resources required to develop a mobile wallet infrastructure called "Garmin Pay" that is available on its smartwatches.

104. With respect to mobile wallets, Apple once again uses iOS API restrictions to hobble its competitors. First, Apple restricts the availability of key digital wallet APIs, including APIs related to near-field communication (NFC) hardware, so that developers cannot distribute competing digital wallet apps to iPhones. The result of this restriction is that iPhone owners cannot

use their Garmin, Samsung, or Google digital wallets across their iPhone and smartwatch, and Apple Watch competitors cannot offer an integrated mobile wallet solution to iPhone owners. Second, Apple pairs this restriction with a refusal to permit third-party smartwatch makers to integrate with Apple Wallet—by API or otherwise—and offer Apple Wallet access to iPhone users on third-party smartwatches. This means that iPhone owners with third-party smartwatches are unable to access cards and IDs stored in their Apple Wallet from their smartwatches.

105. Either of these restrictions alone is sufficient to harm competition from third-party iOS-connected smartwatches. The refusal to allow smartwatches the necessary API access to distribute mobile wallet apps on the iPhone means that a third-party smartwatch can only offer a mobile wallet service where an iPhone user will have to enter all payment cards, transit cards, tickets, and other documents twice—first in Apple Wallet on her iPhone and again in the third-party mobile wallet on her smartwatch. In some cases, transit systems do not permit a user to add a transit card to multiple digital wallets, forcing the user to purchase a new transit card and go through the (often roundabout) process of connecting that transit card to her mobile wallet. And because these mobile wallets are not on the iPhone as well, they cannot offer the ability to scan a government ID into the wallet, meaning that Garmin and other Apple Watch competitors are unable to offer iPhone owners the ability to store an ID on their smartwatch.

106. There is no procompetitive justification for these restrictions. Apple could either provide smartwatch manufacturers with the API access necessary to run mobile wallet apps on the iPhone, or maintain some of its anticompetitive restrictions but allow competing smartwatches to connect to Apple Wallet. There is no technical, privacy, or security reason why Apple cannot permit access to NFC and other private APIs necessary for a mobile wallet to function just as the Apple Wallet does—or, alternatively, give third-party smartwatches the ability to offer Apple

Wallet functionality from the smartwatch. Instead, Apple provides neither of these options, and ensures that iPhone owners are drawn to the Apple Watch by the seamless availability of their smartphone's existing mobile wallet.

107. Having access to their Apple Wallet is essential for smartwatch buyers. A 2024 New York Times Wirecutter article entitled "The Apple Watch Is the Best Smartwatch for iPhone Owners" summarized the central benefits of an Apple Watch as follows:

> With an Apple Watch, you can easily view and respond to iMessages, use Apple Pay to buy things at many stores (or, in many places, pay for a train or bus ride), show your boarding pass at an airport, toggle smart lights, get directions, ping the iPhone you left under a pillow, and, of course, check the time.[59]

The New York Times thus highlighted two features related to the Apple Wallet as critical advantages the Apple Watch offered iPhone owners. The third major advantage it cited was responding to text messages, another feature Apple restricts to the Apple Watch through unnecessary API restrictions. As with the other limitations described above, Apple's mobile wallet restrictions degrade the experience of its own customers: iPhone users are limited in their ability to quickly and conveniently access their stored payment cards and other information. This anticompetitive restriction helps ensure that iPhone owners who want to purchase a full-featured smartwatch have little choice but to purchase an Apple Watch.

C. Restrictions Related to Background App Refresh and Low Power Mode

108. Another restriction Apple imposes on competing smartwatches is the need to leave the app that pairs the iPhone to the smartwatch open in the background on the iPhone. When an Apple Watch is paired to an iPhone, the user does not need to open an app or keep that app open to use the device. For third-party smartwatches, however, the process is different. To pair a third-

[59] Caitlin McGarry, *The Apple Watch Is the Best Smartwatch for iPhone Owners*, New York Times (Jan. 2, 2024), https://www.nytimes.com/wirecutter/reviews/best-smartwatch-iphone/.

party smartwatch to an iPhone, the user must download an app for that smartwatch from the Apple App Store; and then, to keep the smartwatch paired to his or her iPhone, the customer must keep the smartwatch app open and running in the background on the iPhone.

109. For example, smartwatch maker Withings makes the ScanWatch 2, an iOS-connected smartwatch that has the appearance of an ordinary analog watch. The ScanWatch 2 has a number of advantages over the Apple Watch in addition to its appearance, including 30 days of battery life and advanced health tools such as body temperature tracking and sleep scoring. Like the Apple Watch, a ScanWatch 2 owner can receive notifications of texts, calls, emails, and other iPhone alerts directly on the watch. Yet, unlike the Apple Watch, this functionality requires that the iPhone owner keep a Withings App open in the background of their smartphone at all times.

110. The need to have the app open in the background causes significant problems for Apple Watch competitors such as Withings. Third-party smartwatches must continually refresh their apps in the background in order to sync with the iPhone and operate in tandem with the device. Yet when iPhone users turn their devices to Low Power Mode, this background app refresh functionality is restricted. Moreover, the iPhone's Low Power Mode turns on *automatically* by default whenever the battery reaches a certain level. For many iPhone owners, Low Power Mode turns on every day. Moreover, some iPhone owners choose to keep Low Power Mode on at all times to improve their battery performance. The fact that Apple limits the ability of third-party smartwatches to function effectively with iPhones whenever Low Power Mode is on significantly degrades the performance of third-party smartwatches—often on a daily basis and without the user's knowledge.

111. Third-party smartwatch makers, including Withings, acknowledge that Low Power Mode disrupts the functioning of their devices. Withings Support says that the setting can disrupt

the functioning of its Fitness Level feature.[60] Garmin, too, acknowledges that this Apple setting degrades the performance of its device. Garmin's support page explains, "Low Power Mode reduces the amount of power your iPhone uses when the battery gets low. When this setting is turned on, the Garmin Connect app may take longer to update or sync."[61]

112. Upon information and belief, Low Power Mode imposes no comparable restrictions on the Apple Watch, which does not rely on Background App Refresh in the same manner. Apple could, but chooses not to, provide access to the same APIs upon which the Apple Watch relies such that Low Power Mode did not harm third-party smartwatches in this manner. Alternatively, Apple could provide access to APIs or settings to allow third-party smartwatch users to, *at their option*, exempt their apps from the effects of Low Power Mode. Instead, Apple has constructed a smartphone that, by design, disrupts the functioning of third-party smartwatches.

113. Apple benefits from the fact that many iPhone users unknowingly degrade the performance of their smartwatches on a daily basis. When users complain about performance problems on their third-party smartwatch they often have no idea that their iPhone is in Low Power Mode, or that Low Power Mode affects their device negatively.

114. The requirement that the third-party smartwatch app remain open in the background causes other problems for third-party smartwatch owners as well. Google forums are full of customers who purchased iOS-connected Wear OS devices and discovered that the connection was broken every time they closed the Wear OS app in the background. In one forum discussion,

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[60] Withings, *ScanWatch Light – I'm having issues with Fitness Level. What should I do?,* https://support.withings.com/hc/en-us/articles/17117469901969-ScanWatch-Light-I-m-having-issues-with-Fitness-Level-What-should-I-do.

[61] Garmin, *Some Garmin Connect App Features Are Not Working On My iOS Device*, https://support.garmin.com/en-US/?faq=ZuYlrvyuuP0B6jBJQTJEvA.

a number of Wear OS smartwatch users complained about their smartwatch repeatedly disconnecting from their iPhone for this reason:

- Jess Langdon (Nov. 2, 2018): I have connected my new watch to my iPhone with no issue but it keeps disconnecting, it seems fine when I have the wear OS app open on my phone, must I keep it open at all times in order to stay connected?
- Google user (Dec. 17, 2018): Have you received any help from someone who is using an iphone? I am having the same issue and hoping there is a work around aside from preventing yourself from closing the app and leaving it running.
- Abdul Basit Memon (Apr. 1, 2019): Have you received any solution? I am also facing this issue in iPhone, I have to keep open app otherwise it disconnect...[62]

115. As these comments suggest, many iPhone users routinely eliminate the background apps on their device to declutter their screens or in an attempt to save on battery life. Yet once these users acquired a third-party smartwatch, this habitual process caused them to disconnect their smartwatch from all iPhone notifications.

116. Garmin's support page lists a number of watch functionalities that may not function properly if an iPhone user closes the Garmin app in the background: "Activity audio prompts," "All sync-related functions (auto-sync activities, steps, updates)," "Bike alarm notifications," "Calendar widget," "Connect IQ™ app functions, including third-party apps," "Connect IQ™ watch faces," "Connected GPS," "Find My Phone," "Garmin device connection alerts," "Golf courses," "GroupTrack," "Incident Detection," "LiveTrack," "Music controls for your smartphone," "Strava Beacon," and "Weather."[63] Notably, the fact that "Find My Phone" only

[62] Google Help, Wear OS by Google, https://support.google.com/wearos/thread/496842/must-i-keep-the-wear-os-app-open-on-my-iphone-to-stay-connected?hl=en.

[63] *Id.*

works when the app is open in the background means that the tool cannot reliably be used to locate a stolen device, as thieves can simply close the background app to avoid detection.

117. None of this is a problem for Apple Watch users because Apple does not require the Apple Watch to have an app open in the background. Upon information and belief, there is no technical reason Apple must restrict Apple Watch competitors from accessing the APIs that allow this functionality, or must otherwise require competing smartwatches to have an app open in the background. Apple Watches operate effectively without this requirement, and many third-party devices effectively pair to iPhones without requiring an app to be open in the background, including third-party earbuds. Instead, Apple has imposed and preserved the requirement for third-party smartwatches to connect to iPhones via an always-open app in order to degrade user experience and maintain its monopoly over iOS-connected smartwatches.

D. Apple's Restrictions on Bluetooth Pairing

118. One of the features that sets the Apple Watch apart is the reliability of its connection to the iPhone. Most notably, if a user turns off Bluetooth from the iPhone Control Center—either by accident, as often happens, or on purpose—the iPhone does not sever the Bluetooth connection with the Apple Watch. This is because the Apple Watch relies on Bluetooth for a number of its functionalities, and Apple reasonably assumes that if a user is wearing the Apple Watch, he does not intend to disable it when he toggles Bluetooth off. Disabling Bluetooth while wearing an Apple Watch is second nature to many iPhone owners, who may use the Control Center to quickly disconnect Bluetooth headphones or other accessories while going about their day with a functioning Apple Watch.

119. Yet Apple restricts third-party smartwatch makers' access to the APIs that allow the Bluetooth connection to be preserved when a user toggles Bluetooth off. Nor does Apple give

users the ability to choose to have their smartwatch connection preserved when they toggle Bluetooth off. The result is that the Bluetooth connections of Apple Watch competitors are severed every time users toggle Bluetooth off in the Control Center. There is no procompetitive justification for this differential treatment: If it is important to iPhone owners that their Apple Watches stay connected when Bluetooth is switched off in the Control Center, it is presumably just as important to iPhone owners that their third-party smartwatches stay connected when Bluetooth is switched off in the Control Center. Apple could provide the same Bluetooth functionality to competing smartwatches as it provides to the Apple Watch, but chooses not to, and degrades users' experiences of those devices in the process.

E. Apple's Control Over the App Store

120. Apple's control over iOS extends to control of the app ecosystem. iPhones and other iOS devices are required to download apps from Apple's App Store, where the company exercises absolute authority over the apps that are listed and the content of those listings.

121. Apple's App Store Guideline 2.3.10 provides, "Make sure your app is focused on the iOS, iPadOS, macOS, tvOS or watchOS experience, and don't include names, icons, or imagery of other mobile platforms in your app or metadata, unless there is specific, approved interactive functionality. Make sure your app metadata is focused on the app itself and its experience." This restriction makes it harder for iOS device owners with third-party smartwatches to find in the App Store apps that support, or simply work well with, their smartwatch. This App Store policy also enables Apple to dictate the content of App Store listings to prevent iPhone users from finding apps that, while focused on the iPhone, will seamlessly integrate with or otherwise support their third-party smartwatch as well. There is no legitimate procompetitive justification

for these restrictions; instead, Apple is simply using its control over the App Store to limit competition from Apple Watch competitors.

122. Apple used earlier versions of this same policy to block third-party apps from mentioning competing smartwatches. In the same month Apple released the Apple Watch, it began blocking updates in the app store for apps that had historically supported the Pebble smartwatch, citing the content of those apps' listings. For example, the developer of the marine navigation app SeaNav US reported in April 2015 that Apple had rejected an update for its iOS app because, according to Apple, the app "declare[d] support for the Pebble Smartwatch."[64] Other apps reported having to remove images of Pebble devices in screenshots of their app, as well as any mentions of Pebble in app metadata.[65] This is consistent with a practice Apple described in a 2016 email, where Apple's Elizabeth Lee wrote that Apple VP Matt Fischer "feels extremely strong about not featuring our competitors on the App Store."[66] The effect of this conduct was to make it more difficult for iPhone users to find apps that supported their Pebble smartwatches, and also to intimidate developers who continued to offer iPhone apps that supported the Pebble after the Apple Watch's release. By June 2016, nearly twice as many apps supported the Apple Watch as supported Pebble.

123. Apple maintains this restriction on mentioning competing smartwatch platforms to this day. It is of course easier to find and use apps that support a third-party smartwatch if the app entry describes its support for that smartwatch in the app listing. But Apple goes a step further: by restricting mentions of mobile platforms in "metadata," it prevents apps from enabling users who

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[64] Colin Lecher, *Apple says it removed apps with Pebble compatibility by mistake*, The Verge (Apr. 24, 2015), https://www.theverge.com/2015/4/24/8493483/apple-app-update-pebble-policy.

[65] *Id.*

[66] Email from Elizabeth Lee (May 31, 2016).

search for competing smartwatch platforms to find their apps, even if those app listings do not directly mention the competing platform.

124. To illustrate, an iPhone owner with a Garmin smartwatch may want to find iOS fitness apps that can accept data from a Garmin smartwatch. Yet, under this policy, the iPhone owner cannot readily search for Garmin-compatible apps in the Apple App Store, and if the iPhone owner comes across such an app, he or she may have no way to determine from the app listing that it is Garmin-compatible. And even if certain apps choose to mention competing smartwatches anyway, Apple's policy has a profound chilling effect: the ability of Apple to reject an app or its updates under this policy almost certainly limits mentions of competing smartwatches on the App Store. The threat is not empty. Apple has punished apps for mentioning competing smartwatches in the past. Meanwhile, there is no similar restriction on the app mentioning its compatibility with the Apple Watch.

125. Apple could easily change the App Store guidelines to not prohibit or intimidate app developers from mentioning competing iOS-connected platforms and devices—or at least competing iOS-connected smartwatches. Allowing apps to accurately describe their ability to integrate with competing smartwatches would benefit iPhone owners by enabling them to locate apps that work with their third-party devices. The only reason for Apple's current policy is anticompetitive: because its executives "feel[] extremely strong[ly] about not featuring our competitors on the App Store."[67] This anticompetitive policy degrades the experience of Apple's own customers, iPhone owners, by making it more difficult for them to find apps that work well with third-party iOS-connected smartwatches.

[67] *Id.*

126. Apple has a long history of restricting the information available to shoppers on the iOS App Store in an anticompetitive manner. The EU recently levied a $2 billion fine against Apple for practices that included similar restrictions on developers informing consumers of cheaper alternative music apps outside the Apple ecosystem. Apple similarly uses its control over the App Store to harm competition in the iOS-connected smartwatch market on a daily basis.

IV. Overall Anticompetitive Effects of Apple's Conduct

127. Each of the practices described above is anticompetitive on its own. Considered as a whole, Apple's conduct is a highly effective anticompetitive scheme to acquire and maintain a monopoly in the market for iOS-connected smartwatches—restricting supply, harming competition, and enabling Apple to charge supracompetitive prices for its Apple Watch as a result.

128. Through its anticompetitive conduct, Apple has substantially foreclosed competition in the market for iOS-connected smartwatches. Apple now accounts for at least 78% of the iOS-connected smartwatch market, and its market share has been steadily increasing. The growth in Apple's market share is reflected in the fact that the Apple Watch attach rate, which measures the percentage of iPhone users who own Apple Watches, tripled between 2015 and 2022. Meanwhile, major iOS-connected smartwatch competitors such as Samsung exited the market in recent years, ceding some of their market share to Apple. If, in the alternative, the relevant smartwatch market is defined as the market for smartwatches, Apple has substantially foreclosed competition in that market as well. Apple has an approximately 60% share of the smartwatch market and this percentage has been steadily rising.

129. As a result of Apple's conduct, multiple suppliers of competing smartwatches for iPhone users have gone out of business, exited the market, stopped selling smartwatches to iPhone

users, or declined to enter the market altogether. These companies include Pebble, Motorola, Fossil, Samsung, Google, and Meta.

130. There is no legitimate business justification for Apple's conduct. Even if there were legitimate business objectives for certain of the restrictions and technical limitations imposed on third-party smartwatches, those objectives could be achieved by less restrictive means.

131. Apple continues to engage in the above anticompetitive conduct in order to continue foreclosing competition in the market for iOS-connected smartwatches or, in the alternative, the market for smartwatches generally. In addition to enabling continued supracompetitive pricing, Apple's restrictions substantially degrade the functionality and user experience of third-party iOS-connected smartwatches. Apple's restrictions on third-party smartwatches also harm all smartphone and smartwatch users by restricting the supply of competing smartwatches and artificially restricting the network of customers that can seamlessly message with one another.

V. Relevant Product Market

132. The relevant product market in this case is the market for iOS-connected smartwatches. In the alternative, the relevant product market is the market for smartwatches. In the market for iOS-connected smartwatches, Apple competes with other smartwatch manufacturers to supply smartwatches to iPhone owners. This market can also be understood as an iPhone aftermarket. The alternative market for smartwatches includes smartwatches that connect solely to Android devices, such as Google's Pixel Watch, smartwatches that connect to Android devices and iPhones alike, such as those made by Garmin, and Apple Watches, which connect only to iPhones.

133. Much of Apple's conduct in this case is best understood in the context of an additional market: the market for iOS smartphones or, in the alternative, the market for smartphones generally. The market for iOS smartphones is a single-brand market comprising Apple's iPhone devices running the iOS mobile operating system. The market for smartphones generally comprises Apple's iPhone as well as competing smartphones primarily running the Android mobile operating system. Under either smartphone market definition, Apple has monopoly power that it uses to exercise control over the relevant smartwatch market.

A. Smartphones and Smartwatches Are Separate Products

134. Smartphones and smartwatches are separate products that must work in close coordination. Smartphones and smartwatches are sold separately: many consumers who buy smartphones do not buy smartwatches. And when smartphone owners do buy smartwatches, they typically shop for the two products separately. A primary function of a smartwatch is to serve as an extension of a user's smartphone, providing easy, portable access to various smartphone functions. Indeed, many leading smartwatches cannot even be set up without owning an existing smartphone. Samsung Galaxy watches running the Wear OS operating system cannot be used without a smartphone. The Apple Watch, too, requires the user to have an iPhone to set up and use the device.[68] Apple uses this need to attach a smartwatch to a smartphone in order to discriminate against Apple Watch competitors, using its control over iOS to disrupt competitors and strategically restrict access to critical functionalities so that Apple retains control over those

[68] The only exception is Apple Watches relying on "Family Setup," a feature that allows the Apple Watch to be set up using a family member's iPhone. This feature enables adults to set up (and control) their child's or parent's Apple Watch from their iPhone. Yet Apple Watches relying on Family Setup still require that a family member own an iPhone. *See* Apple Support, *Set up Apple Watch for a family member*, https://support.apple.com/en-us/109036.

portions of the smartwatch market it thinks it can dominate, while allowing competitors access to the market where it benefits Apple.

135. Even for those smartwatches that permit users to set up the devices without a smartphone, the resulting device is severely limited. Many essential smartwatch features presuppose that the user owns a smartphone. Moreover, with the exception of the minority of smartwatches connected to a cellular data plan, the smartwatch not connected to a smartphone will have limited functionality in day-to-day life because the user will lack access to the internet throughout the day. Even certain fitness-oriented devices that do not require a smartphone have more limited capabilities when not synced with a smartphone because they rely on a smartphone's location data, including to provide accurate weather and altitude readings, and rely on certain smartphone apps to sync information with the watch on an ongoing basis.

B. Market for iOS Smartphones

136. Smartphones are mobile devices that combine the functions of cell phones with those of a mobile computer, enabling a user to make phone calls, send emails and text messages, and use a seemingly endless variety of apps on a single mobile device. The majority of smartphones in the United States are iPhones running on Apple's iOS mobile operating system. Nearly all remaining smartphones run on Google's Android mobile operating system. Apple is the only maker of iOS smartphones, while Android smartphones are manufactured by a variety of companies, including Lenovo, Samsung, and Google.

137. iOS smartphones are a relevant product market. Most adults in the United States now own either an iOS smartphone or an Android smartphone. Having made the choice to use an iOS or Android smartphone, the vast majority of users continue to purchase smartphones on the same operating system in the future. iOS smartphone users do not consider iOS and Android

smartphones reasonably interchangeable and generally do not consider purchasing Android smartphones when it comes time to replace their iPhone.

138. One reason iOS smartphones are not reasonably interchangeable with Android smartphones is that smartphones are long-lasting devices that users spend considerable time learning to use, customizing, and adding valuable content to before replacing. The desire to continue using apps; to preserve data such as messages, photos, and videos; and to continue using a device that one has learned and grown accustomed to mean that users generally continue using smartphones on the same mobile operating system once they have begun. This effect is exacerbated by Apple's efforts to tie its products together and lock its customers into the Apple ecosystem, meaning that iPhone owners end up purchasing other Apple devices and find that those devices will not work as well with competing smartphones. Moreover, iOS and Android smartphones are available at a wide range of prices, and combined with the availability of device subsidies from mobile carriers, smartphone buyers in the United States can find either an iPhone or Android smartphone at almost any price point. As a result, switching between iOS and Android phones is uncommon and users who purchase iPhones tend to continue purchasing them in the future. In the United States, nearly 90 percent of iPhone owners replace their iPhone with another iPhone. The iPhone's growing market share also demonstrates that while some Android users switch to the iPhone, users of the iPhone switch Android smartphones at a substantially lower rate, suggesting that iPhone users do not view Android smartphones as reasonable substitutes.

139. In the alternative, Apple competes in the market for smartphones. In this market, Apple's iPhone competes against Android smartphones made by Lenovo, Samsung, Google, and other device manufacturers.

140. However the smartphone market is defined, neither iOS smartphones nor smartphones generally are reasonably interchangeable for "feature phones" or other cell phones that are not smartphones. These cell phones lack the third-party apps, processing power, and hardware capabilities that allow smartphones to perform a broad range of functionalities. Even if key third-party apps were available for these devices, their lower quality cameras, screens, and processing power would significantly limits the ability to use these devices for many common smartphone tasks, such as taking pictures, posting on social media, playing mobile games, or using videoconferencing tools for work or communicating with friends.

141. iOS smartphones and smartphones generally are also not reasonably interchangeable with laptops or tablets. Among other differences, laptops and tablets are not designed to be carried in a user's pocket, typically lack a cellular data connection, and have cameras that are inferior smartphone cameras. As a result of their larger size and lack of cellular data connection, laptops and tablets cannot substitute for a variety of smartphone functionalities, including: text messaging, providing in-car navigation, casual mobile gaming (such as during a commute), or on-the-go music streaming. Moreover, the inferior cameras on laptops and tablets, as well as their size, means that they cannot function as digital cameras or video recorders, one of the most-used features of modern smartphones.

142. Finally, for the reasons explained in the previous section, smartphones are not reasonably interchangeable with smartwatches.

C. Market for iOS-Connected Smartwatches

143. Smartwatches are distinct products not reasonably interchangeable with smartphones, wrist-worn fitness trackers, or wristwatches. As explained above, smartwatches generally serve to improve and extend the capabilities of smartphones, and therefore cannot be

substituted for smartphones themselves. A smartphone also cannot be worn comfortably on the wrist and lacks the fitness and health tracking features common to smartwatches. Smartwatches are also not reasonably interchangeable for fitness trackers because fitness trackers generally provide only the health and fitness tracking functionality of a smartwatch, without the third-party apps or messaging, notification, and time-telling functionalities. In other words, while a fitness tracker may provide health and fitness data that syncs to a smartphone, it does not improve or extend the capabilities of a smartphone in most other respects. Finally, smartwatches are not reasonably interchangeable with ordinary wrist-watches because ordinary wristwatches typically only tell time, or potentially include basic tools such as stopwatches and alarms. Ordinary wristwatches lack the powerful internal computing power and third-party apps of smartwatches and typically cannot connect to a smartphone at all to improve or extend smartphone capabilities.

144. The relevant product market in this case is the market for iOS-connected smartwatches. The market for iOS-connected smartwatches is the market for wrist-worn devices that extend and improve the capabilities of the iPhone. Among other functions, iOS-connected smartwatches may allow users to view and act on messages and notifications received by the iPhone, provide easy access to a mobile wallet, and collect and sync health and fitness data with the iPhone. As explained above, customers typically do, and often must, own a smartphone before purchasing an associated smartwatch. For the same reason, the smartphone a customer owns is highly determinative of the smartwatch that customer will buy; many smartwatches do not work with, or work less effectively with, certain smartphones. This is particularly true for iPhone owners. Manufacturers compete to sell smartwatches to owners of iPhones.

145. The market for iOS-connected smartwatches includes those manufacturers who sell smartwatches only to owners of iPhones, such as Apple, and manufacturers who sell smartwatches

that are compatible with iPhones and Android smartphones alike, such as Garmin. iOS-connected smartwatches constitute a distinct market because there is no reasonable substitute for the devices. Consumers with iPhones who want to purchase smartwatches must purchase iOS-connected smartwatches because other smartwatches, such as those that connect only to Android devices, simply do not work.

146. Marketing materials demonstrate that the markets for iOS-connected and Android-connected smartwatches are distinct. On the homepage for Garmin's Instinct Crossover smartwatch, the third fact Garmin mentions—after describing the analog hands and accurate timekeeping—is that the watch "connects to Android and Apple devices."[69] Garmin recognizes that smartwatch buyers must first determine if the device is compatible with their smartphone before deciding to buy a given smartwatch.

147. Just as Apple only sells smartwatches to iPhone owners, Google and Samsung sell smartwatches that connect only to Android smartphone owners. Those smartwatches are not reasonable substitutes for iOS-connected smartwatches because iPhone owners would have to purchase Android smartphones in order to use those companies' Android-only smartwatches.

148. If there were only one company that made smartwatches that connected to iPhones, that company could institute a small but substantial increase in price above competitive levels, as the vast majority of iPhone owners would not switch to Android smartphones just to access Android-only smartwatches. This demonstrates that the market for iOS-connected smartwatches constitutes a distinct market. In economic terms, a hypothetical monopolist could impose a small but significant non-transitory increase in price (SSNIP) in the market for iOS-connected

[69] Garmin, Instinct Crossover – Standard Edition, https://www.garmin.com/en-US/p/819761.

smartwatches and not lose sufficient volume to make the price increase unprofitable. And in fact, that is precisely what Apple has done with its Apple Watches.

149. The market for iOS-connected smartwatches could be equivalently understood as an iPhone aftermarket—a market for a good that serves as an add-on or complement to the initial iPhone purchase. When non-smartwatch owners purchase an iPhone, particularly their first iPhone, they typically do not consider the costs and difficulties that will be associated with purchasing a non-Apple smartwatch with their device. In many cases, iPhone buyers purchased their smartphones before smartwatches were mainstream products, and are now locked into using iPhone devices for the reasons described above. Even for iPhone buyers who are aware that they might want to extend their device's capabilities with a smartwatch, the difficulties with using a third-party smartwatch alongside an iPhone are not well-publicized, especially by Apple itself, which largely downplays the restraints it imposes as minor security or privacy measures. And even if iPhone owners were aware of these restraints, they have no means of predicting how these restraints will grow or evolve with subsequent updates to the iOS operating system, and thereby further reduce the functionality of their smartwatch. It is therefore difficult for iPhone buyers to adequately determine the costs they will face due to Apple's restrictions in the smartwatch aftermarket at the time of their iPhone (or smartwatch) purchase.

150. When iPhone buyers do become aware of the problems with third-party smartwatches and the high cost of the Apple Watch, they encounter significant costs in switching away from iPhones, meaning that iPhone users cannot simply switch to an Android smartphone in order to purchase or use a non-Apple smartwatch.

151. Finally, for the reasons detailed above, iPhones and iOS-connected smartwatches are not part of a single market. Smartphones and smartwatches are not substitutes for one another.

Smartwatches function to extend the capabilities of smartphones and consumers cannot reasonably use a smartwatch in place of a smartphone—or vice versa. The fact that analysts report an "attach rate" for Apple Watches also supports the conclusion that the Apple Watch competes in an iPhone aftermarket. Attach rates are typically used in business and marketing to track the number of units sold of a secondary or add-on product.

152. In the alternative, Apple competes in the single market for smartwatches. This market is defined as the market for wrist-worn devices that extend and improve the capabilities of smartphones. Among other functions, smartwatches may allow users to view and act on messages and notifications received by the smartphone, provide easy access to a mobile wallet, and collect health and fitness data. Apple competes in this market with its Apple Watch. Other competitors in this market include Motorola, Garmin, Samsung, and Google.

D. The Relevant Geographic Market is the United States

153. The United States is the relevant geographic market for sales of iOS-connected smartwatches and smartwatches generally, as well as for iOS smartphones and smartphones generally. Smartwatch and smartphone manufacturers, including Apple, employ differentiated pricing for consumers in the United States and outside the United States in both online sales and sales at physical retail stores. Smartwatch prices for consumers are essentially uniform throughout the United States, but deviate widely from the prices offered to consumers in other parts of the world. The prices of smartwatches and smartphones in the United States are also ordinarily lower than in other parts of the world, meaning that, as a practical matter, U.S. consumers purchase these products within the United States.

154. Smartwatches and smartphones are also subject to significant federal regulation over the sale of devices in the United States. Among other regulations, smartwatch and smartphone

manufacturers must obtain authorization from the Federal Communications Commission (FCC) to sell their devices to U.S. consumers. Notably, the FCC has banned major international manufacturers, Huawei and ZTE, from selling devices in the United States that continue to be sold throughout the rest of the world. Moreover, smartphone prices in the United States are regularly influenced by promotions and discounts offered by national cellular carriers who subsidize the cost of the devices in exchange for signing service contracts. Smartwatches, too, are frequently purchased at stores for national cellular carriers that do not sell outside the United States, as they are sometimes purchased with accompanying data plans.

155. In the alternative, the markets iOS-connected smartwatches, smartwatches overall, iOS smartphones, and smartphones overall are worldwide.

VI. Monopoly Power

156. As outlined below, Apple has monopoly power in the market for iOS-connected smartwatches, the overall market for smartwatches, the market for iOS smartphones, and the overall market for smartphones.

A. Apple Has Monopoly Power in the Market for iOS-Connected Smartwatches

157. Apple has monopoly power in the market for iOS-connected smartwatches in the United States. In the alternative, Apple has monopoly power in the market for smartwatches in the United States.

158. The existence of monopoly power is supported by a 2023 study by Counterpoint research, which determined that 78% of iPhone owners with smartwatches use an Apple Watch. The next largest competitor was Garmin, with only 7% market share. Even if the market is defined to include all smartwatches in the United States, Apple has a market share of approximately 60%.

159. Further evidence of Apple's monopoly power is the fact that it has increased prices of Apple Watches while simultaneously increasing its market share, and consistently charged prices greater than comparable competing devices. The base model of the Apple Watch Series 1, released in 2016, cost $269. Two years later, the base model Apple Watch cost $399. The base model Apple Watch Series 3, released in 2017, cost $399 with cellular service enabled, while the most recent base model Apple Watch Series 9 cost $499 with cellular service enabled. In recent years, Apple has added a premium-tier Apple Watch Ultra as well, which debuted in 2022 and cost $799. These price increases have not reflected increasing Apple Watch quality. This is evident from the fact that while the Apple Watch has improved in certain respects, those improvements have been matched (or exceeded) by comparable smartwatches, as discussed below, and those comparable smartwatches have not imposed similar price increases.

160. Throughout this period of price increases, Apple's share of the iOS-connected smartwatch market and the overall smartwatch market increased. This is especially notable because Apple Watches cost significantly more than comparable, competing devices. Setting aside the Apple Watch, the best iOS-compatible smartwatches, according to PC Magazine, include Garmin's Venu Sq 2 ($249) and Fitbit Versa 4 ($199).[70] Reviews widely praise Fitbit's Versa smartwatches, particularly for their comfort, far superior battery life (six days compared to less than one for the Apple Watch), and fitness features. In the words of one reviewer, the Versa "delivers nearly everything" the Apple Watch provides and does so at a lower cost.[71] Moreover, Fitbit's Versa smartwatches have fallen in price in recent years—from $229 for the Versa 3 to

[70] Alex Colon and Angela Moscaritolo, *The Best Smartwatches for 2024*, PC Magazine (Feb. 29, 2024), https://www.pcmag.com/picks/the-best-smartwatches.

[71] Dawn Allcot, *Apple Watch Series 7 vs. Fitbit Versa 3: Which Smartwatch Deserves a Look*, TheStreet (Apr. 21, 2022), https://www.thestreet.com/personal-finance/apple-watch-series-7-vs-fitbit-versa-3.

$199 for the Versa 4. Apple's smartwatches are also priced higher than top-rated smartwatches made exclusively for Android devices, including the Samsung Galaxy Watch 6 ($249) and Google Pixel Watch 2 ($349). Apple's ability to charge supracompetitive prices while increasing its market share is evidence of its monopoly power. Apple has enjoyed increasing gross profit margins throughout this period as well.

161. Apple's monopoly power in the market for iOS-connected smartwatches is also supported by the fact that, over time, an increasing share of iPhone customers have purchased Apple Watches. In 2022, Counterpoint Research reported that 30% of iPhone users owned an active Apple Watch. This "attach rate" was nearly triple the rate reported after the release of the Apple Watch in 2015.[72]

162. Competitors cannot discipline Apple's exercise of monopoly power due to the control the company exercises over the Apple Watch via iOS. Nor can new entrants significantly discipline Apple's exercise of monopoly power. They too would face the same restrictions resulting from Apple's control over iOS, but with the added difficulties of very high barriers to entry. Developing a smartwatch requires tens and likely hundreds of millions of dollars in investment to build the necessary software and hardware, and to manufacture the device at scale. These barriers to entry are reflected in the increasing consolidation among smartwatch competitors: Fitbit acquired Pebble's intellectual property in 2016, and Fitbit was subsequently acquired by Google in 2021. In recent years, a number of potential and actual entrants have either abandoned their plans to enter the smartwatch business or abandoned their ongoing smartwatch operations. These include massive technology companies such as Meta, which in 2022 abandoned

[72] William Gallagher, *Apple Watch sets new US record, now owned by 30% of iPhone users*, Apple Insider (Oct. 14, 2022), https://appleinsider.com/articles/22/10/14/apple-watch-sets-new-us-record-now-owned-by-30-of-iphone-users.

an iOS-connected smartwatch it was developing and planned to release in 2023, as well as Fossil, which in 2024 announced it would release no new smartwatches.

B. Apple Has Monopoly Power in the Market for iOS Smartphones

163. Apple also has monopoly power in the market for iOS smartphones. Apple's iPhone accounts for 100% of sales in the market for iOS smartphones. Apple exercises complete control over iOS, licenses its mobile operating system to no smartphone competitor, and manufactures the iPhone smartphones that account for 100% of the market. Apple's decision not to license iOS means that no entrant can discipline Apple's exercise of monopoly power over iOS smartphones. Apple's monopoly power is further demonstrated by the fact that iPhone prices are rising along with Apple's profit margin on the iPhone, as detailed below.

164. In the alternative, Apple has monopoly power in the market for smartphones. In the United States, Apple's monopoly power is apparent from its market share. As of the start of 2024, Apple had a greater than 60% share of smartphone shipments in the United States. The company accounted for at least 64% of smartphone shipments in Q4 2023. Also supporting Apple's monopoly power is its dominance in the most profitable premium smartphone segment, where Apple accounts for an even larger share of the market in the United States and around the world. Apple also has a monopoly share in the performance smartphone market, which excludes entry-level smartphones. The iPhone accounts for more than 70 percent of performance smartphone sales in the United States. Apple also controls a greater share of certain critical smartphone sub-markets, including the 18- to 24-year-old demographic. Among 18- to 24-year-olds in the United States, Apple has at least 79% market share.[73]

[73] Bloomberg, *79% of Gen Z US Consumers Prefer iPhones to Rivals, Finds Bloomberg Intelligence*, (Feb. 23, 2023), https://www.bloomberg.com/company/press/79-of-gen-z-us-consumers-prefer-iphones-to-rivals-finds-bloomberg-intelligence/.

165. Apple's monopoly power in the market for smartphones is further demonstrated by the fact that it has increased the price of iPhones even as it has increased its market share, and has seen its profits grow at the same time. In 2008, the base model iPhone 3G sold for $199. The base model iPhone 15 sold for $799 in 2023. Between 2020 and 2021 alone, the average price of an iPhone increased by $66. Meanwhile, Apple's gross profit margin has increased more than 7% between Q4 2019 and Q4 2023. Upon information and belief, this increasing margin is attributable in substantial part to Apple's iPhone business, which accounts for more than half of the company's overall revenue.

166. Competing smartphones do not discipline Apple's exercise of monopoly power in the smartphone market. Apple is a unified smartphone manufacturer with control over the iOS software that runs iPhones, the App Store that provides apps for iPhones, and the physical hardware of the iPhone itself. Apple's smartphone competitors, meanwhile, are highly fragmented. While most of its competitors operate on Google's Android operating system, Google does not have a significant share of the smartphone device market, and no device manufacturer in the United States has even half of Apple's market share. Moreover, two of the strongest global smartphone companies, Huawei and ZTE, are barred from selling devices in the United States, further preventing checks on Apple's dominance in the U.S. market.

167. Apple's competitors in the global smartphone market are only more fragmented. As of Q4 2023, Apple had the largest share of the global smartphone market, with nearly 25% of smartphone sales, and the next largest competitor, Samsung, accounted for only 16% of smartphone sales.[74] Meanwhile, in the global smartphone market of the greatest relevance for

[74] Federica Laricchia, *Global smartphone market share from 4th quarter 2009 to 4th quarter 2023, by vendor*, Statista (Feb. 8. 2024), https://www.statista.com/statistics/271496/global-market-share-held-by-smartphone-vendors-since-4th-quarter-2009/.

manufacturers—the market for premium smartphones over $600—Apple's monopoly power is apparent from its market share: in 2022 and 2023 respectively, Apple accounted for 75% and 71% of global premium smartphone shipments.[75]

168. Nor can new entrants discipline Apple's monopoly power in the smartphone market. The smartphone market has high barriers to entry, requiring immense investments in both software and hardware to develop a competitive device. Many sophisticated technology companies have tried and failed to enter the smartphone business, including Amazon, Microsoft, and Facebook (now Meta). And the iPhone benefits from substantial network effects, including a catalog of millions of apps developed specially for the device.

169. Also contributing to these network effects is the fact that once consumers have purchased an iPhone, they are locked in to that device and the Apple ecosystem. iPhones themselves are high-cost, long-lasting, durable products that customers cannot easily switch away from after purchase. iPhones are also regularly subsidized by cellular network providers, further tying customers by contract to the device for multiple years. And once customers purchase an iPhone, they are unlikely to switch to a competing device due to difficulties or perceived difficulties related to the transfer of photos and videos, text messages, and apps. And Apple's strategy of tying customers into the Apple product ecosystem means that iPhone customers who have purchased other Apple products, such as an iPad or MacBook, feel constrained to continue purchasing iPhones because those other Apple devices will either not work with, or will work less well with, competing smartphones. As discussed in this complaint, this lock-in effect is by design,

[75] Yahoo! Finance, *Apple dominates global premium smartphone market in 2023, but Huawei gains ground on the back of its new 5G handsets*, (Jan. 3, 2024), https://finance.yahoo.com/news/apple-dominates-global-premium-smartphone-093000842.html.

and Apple's internal emails show that it has prevented interoperability between iPhones and competing devices with the express intention of keeping users locked into the Apple ecosystem.

VII. Antitrust Injury and Standing

170. Plaintiff and the members of the putative class have suffered antitrust injury as a direct result of Apple's unlawful conduct. Apple's conduct enabled it to charge Plaintiff and the members of the putative class supracompetitive prices for Apple Watches. Plaintiff and the members of the putative class are the direct purchasers of Apple Watches from Apple who paid supracompetitive prices for those devices to Apple.

CLASS ACTION ALLEGATIONS

171. Plaintiff brings this action on behalf of itself and as a class action pursuant to Federal Rules of Civil Procedure 23(a), and 23(b)(2), 23(b)(3), and/or 23(c)(4) on behalf of the following proposed class:

> **Proposed Class:** All persons in the United States that purchased an Apple Watch directly from Apple, other than for resale, between April 3, 2020, and the present.

172. Excluded from the class are: (a) Defendant; (b) subsidiaries and affiliates of Defendant; (c) any person or entity who is an officer, director, employee, or controlling person of any Defendant; (d) any entity in which Defendant has a controlling interest; (e) the legal representatives, heirs, successors, and assigns of any excluded party; and (f) any judicial officer presiding over this action, the members of his or her immediate family and staff, and any juror assigned to this action.

173. Numerosity. The members of the class are so numerous that joinder of all members is impracticable. Apple has sold millions of Apple Watches to people in the United States since 2020. Upon information and belief, there are over 50 million people in the proposed class.

174. Typicality. Plaintiff's claims are typical of the claims of the members of the class. On December 2, 2021, Plaintiff purchased an Apple Watch directly from Apple on Apple.com for pickup at the Oakbrook, Illinois, Apple Store. Plaintiff's claims are also typical of the other class members in that Plaintiff has been damaged as a result of paying a supracompetitive price to Apple to purchase an Apple Watch, and continues to suffer harms due to Apple's anticompetitive conduct.

175. Adequacy. Plaintiff will fairly and adequately protect the interests of the putative class and has retained counsel competent and experienced in antitrust litigation and class action litigation. Plaintiff is committed to the vigorous prosecution of this action and has no interests that are adverse or antagonistic to the class.

176. Superiority. A class action is superior to all other available means for the fair and efficient adjudication of the claims of the members of the class. The damages suffered by some individual members of the class may be relatively small compared to the burden and expense of individual prosecution of the complex and extensive litigation required to recover from Apple. It would be impractical for most, if not all, class members to redress the wrongs done to them on an individual basis. Furthermore, individual litigation would be unmanageable for the Court system as it would result in hundreds, if not thousands, of individual lawsuits, creating the risk of inconsistent or contradictory judgments and increasing the delay and expense to all parties and the court system. In contrast, a class action would present far fewer management difficulties. Class action treatment provides the benefits of a single adjudication, economies of scale, and supervision by a single court. The members of the class are ascertainable through methods typical of class action practice and procedure, including through Apple's own records.

177. Existence and Predominance of Common Questions of Law and Fact. Numerous questions of law and/or fact are common to Plaintiff and all members of the class. These common questions will result in common answers for all class members that will impact the resolution of the claims on grounds equally applicable to all class members. These common questions, which predominate over any questions affecting only individual class members, include, but are not limited to:

A. Whether Apple's Developer Program License Agreement with makers of competing smartwatches constitutes an unreasonable restraint of trade.

B. Whether the market for iOS-connected smartwatches in the United States is a relevant antitrust market.

C. Whether Apple has monopoly power in the market for iOS-connected smartwatches in the United States.

D. Whether the market for smartwatches in the United States is a relevant antitrust market.

E. Whether Apple has monopoly power in the market for smartwatches in the United States.

F. Whether Apple has engaged in anticompetitive conduct to illegally maintain a monopoly in the market for iOS-connected smartwatches in the United States.

G. Whether Apple has engaged in anticompetitive conduct to illegally maintain a monopoly in the market for smartwatches in the United States.

H. Whether Apple's conduct resulted in supracompetitive prices paid by purchasers of Apple Watches during the class period.

I. The correct measure of class-wide damages.

J. Whether injunctive relief is appropriate to restrain Apple from continued anticompetitive conduct in the market for iOS-connected smartwatches.

178. Certification is also appropriate under Federal Rule of Civil Procedure 23(b)(2), in addition to Federal Rule of Civil Procedure 23(b)(3), because Apple has acted or refused to act on grounds generally applicable to the Class, thereby making appropriate final injunctive relief with respect to the entire Class.

CAUSE OF ACTION I: MONOPOLIZATION
(15 U.S.C. § 2)

179. Plaintiff incorporates by reference each of the allegations set forth in this complaint as if fully set forth herein.

180. Apple's conduct violates Section 2 of the Sherman Act, which prohibits "monopoliz[ation of] any part of the trade or commerce among the several States, or with foreign nations." 15 U.S.C. § 2.

181. The market for iOS-connected smartwatches in the United States is a valid antitrust market. In the alternative, the market for smartwatches in the United States is a valid antitrust market.

182. Apple has monopoly power in the market for iOS-connected smartwatches in the United States. In the alternative, Apple has monopoly power in the market for smartwatches in the United States.

183. Apple has unlawfully acquired and maintained monopoly power in the relevant smartwatch antitrust market through the anticompetitive conduct described above.

184. Apple's conduct affects a substantial volume of interstate commerce.

185. Apple's conduct has substantial anticompetitive effects, including increased prices, as well as reduced quality, innovation, and output.

186. As purchasers of Apple Watches, Plaintiff and the members of the proposed class have been harmed by Apple's anticompetitive conduct in a manner that the antitrust laws were intended to prevent. Among other injuries, Plaintiff and the putative class members paid more for Apple Watches than they would have in a competitive market. Plaintiff and members of the proposed class will continue to suffer injuries until an injunction issues ending Apple's anticompetitive conduct.

CAUSE OF ACTION II: ATTEMPTED MONOPOLIZATION
(15 U.S.C. § 2)

187. Plaintiff incorporates by reference each of the allegations set forth in this complaint as if fully set forth herein.

188. Apple's conduct violates Section 2 of the Sherman Act, which prohibits "monopoliz[ation of] any part of the trade or commerce among the several States, or with foreign nations." 15 U.S.C. § 2.

189. The market for iOS-connected smartwatches in the United States is a valid antitrust market. In the alternative, the market for smartwatches in the United States is a valid antitrust market.

190. If, in the alternative to the above-pleaded monopolization claim, Apple does not have monopoly power in the market for iOS-connected smartwatches in the United States, or in the market for smartwatches in the United States, then there is a dangerous probability that Apple will acquire monopoly power in the market for iOS-connected smartwatches in the United States or, in the alternative, the market for smartwatches in the United States, through its anticompetitive conduct. Apple is willfully engaging in the anticompetitive conduct alleged above with the specific intent of achieving monopoly power and monopolizing the relevant market.

191. This dangerous probability of achieving monopoly power is evident from Apple's rising share of the iOS-connected smartwatch market and smartwatch market generally, as well as Apple's rising Apple Watch attach rate, which measures the percentage of iPhone owners that own an Apple Watch. This attach rate has tripled since the Apple Watch was released in 2015 to 30% in 2022. In this same period, Apple's share of the smartphone market has grown as well, recently reaching an all-time high of approximately 65%. As the percentage of Americans with Android smartphones shrinks, so does the number of smartphone owners with devices not encumbered by Apple's restrictions, further limiting the ability of smartwatch companies to compete with Apple and bolster their sales by selling smartwatches to Android users.

192. Apple's conduct in other markets also shows the dangerous probability that it will acquire monopoly power in these relevant markets. In addition to the Department of Justice's recent litigation against Apple for monopolization of the smartphone market, Apple was recently fined nearly $2 billion by the European Union for anticompetitive App Store rules that led to consumers overpaying for music streaming services. Apple has also shown an ability to rapidly accumulate market share in markets for iPhone- and smartphone-connected devices. This includes the market for headphones, where Apple had acquired nearly 50% market share by 2021 between its Airpods and Beats headphones brands,[76] as well as the market for lost-item trackers, where, as described above, Apple was accused of anticompetitive conduct by competitor Tile before and after the release of Apple's competing Airtag devices in 2021, and where Apple quickly captured significant market share from Tile.

193. Apple's conduct affects a substantial volume of interstate commerce.

[76] Felix Richter, *Apple Dominates the U.S. Headphones Market*, Statista (Feb. 7, 2022), https://www.statista.com/chart/26791/most-popular-headphone-brands-in-the-us/.

194. Apple's conduct has substantial anticompetitive effects, including increased prices, as well as reduced quality, innovation, and output in the relevant product market.

195. As purchasers of Apple Watches, Plaintiff and the members of the proposed class have been harmed by Apple's anticompetitive conduct in a manner that the antitrust laws were intended to prevent. Among other injuries, Plaintiff and the putative class members paid more for Apple Watches than they would have in a competitive market. Plaintiff and members of the proposed class will continue to suffer injuries until an injunction issues ending Apple's anticompetitive conduct.

CAUSE OF ACTION III: UNREASONABLE RESTRAINT OF TRADE (15 U.S.C. § 1)

196. Plaintiff incorporates by reference each of the allegations set forth in this complaint as if fully set forth herein.

197. Apple's conduct violates Section 1 of the Sherman Act, which prohibits "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations." 15 U.S.C. § 1.

198. Apple forces all iOS app developers, including its competitors in the iOS-connected smartwatch market, to enter into its Developer Program License Agreement (DPLA) as a condition of distributing iOS apps. The provisions of the DPLA restricting the signatories' access to private APIs, and requiring them to use public APIs "in the manner prescribed by Apple," unreasonably restrain trade in the market for iOS-connected smartwatches in the United States. In the alternative, these DPLA provisions unreasonably restrain trade in the market for smartwatches in the United States.

199. Apple's agreements with Apple Watch competitors are illegal *per se*. In the alternative, Apple's agreements with competitors are unreasonable restraints of trade when evaluated under the Rule of Reason.

200. The challenged provisions serve no legitimate or procompetitive purpose.

201. Apple's conduct affects a substantial volume of interstate commerce.

202. Apple's conduct has substantial anticompetitive effects, including increased prices and costs, reduced output, and reduced innovation and product quality.

203. As purchasers of Apple Watches, Plaintiff and the members of the proposed class have been harmed by Apple's anticompetitive conduct in a manner that the antitrust laws were intended to prevent. Among other injuries, Plaintiff and the putative class members paid more for Apple Watches than they would have in a competitive market. Plaintiff and members of the proposed class will continue to suffer injuries until an injunction issues ending Apple's anticompetitive conduct.

PRAYER FOR RELIEF

Wherefore, Plaintiff, on behalf of himself and the Class, prays for judgment against Defendant as follows:

204. Determining that this action may be maintained as a class action pursuant to Federal Rule of Civil Procedure 23 and directing that reasonable notice of this action be provided to the Class pursuant to Rule 23(c)(2).

205. Awarding Plaintiff and the Class treble damages for their injuries caused by Apple's violations of the federal antitrust laws.

206. Granting Plaintiff and the Class injunctive and other equitable relief enjoining Apple, its officers, agents, servants, and employees, and all those acting in concert with the aforementioned parties, from engaging in the anticompetitive conduct alleged herein.

207. Awarding Plaintiff and the Class reasonable attorneys' fees and costs.

208. Granting such other and further relief as the Court may deem just and proper.

DEMAND FOR A JURY TRIAL

209. In accordance with Federal Rule of Civil Procedure 38, Plaintiff hereby demands a trial by jury on all issues so triable.

Dated: April 3, 2024

Respectfully submitted,

By: /s/ *George A. Zelcs*

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